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ABSTRACT

Intended for use by practitioners working with children with substantial disabilities and their families, this manual presents a theoretical perspective and specific curriculum goals and strategies based on social reciprocity theory. Part 1 reviews the research and identifies key behaviors and related curriculum goals that strengthen social reciprocity. Evaluation data from the Charlotte Circle model demonstration project in North Carolina are reported. Part 2 offers curriculum goals and strategies for strengthening social reciprocity in the following areas: increasing smiling; having fun together through play; imitation; early communication; relaxation; and managing and comforting crying. Each curriculum section covers: the value of the goal, sample outcomes from an individualized family service plan (IFSP), a theoretical perspective, an early interventionist's guide, data collection strategies, and parent handouts. Part 3 discusses the contexts in which these interventions can be implemented--in the community, in school, and in therapy sessions. There are many reproducible pages in both English and Spanish. Appendixes include lists of possible reinforcers and a parent letter. Includes 155 references. (DB)

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Charlotte Circle Intervention Guide for Parent-Child Interactions

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Dedication

We dedicate this book to the children of the Charlotte Circle Project and their families.

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How to Use This Guide

Social reciprocity goals emphasize families and children and what they mean to each other. This curriculum guide is written for early intervention professionals who work with young children with substantial disabilities and their families.

The social reciprocity goals are presented here in general terms. The goals should be reviewed by interdisciplinary Individualized Family Service Plan (IFSP) teams to determine their appropriateness for individual children and to suggest modifications. Because this is a supplement rather than a comprehensive curriculum guide, users are invited to pick and choose from among the goals and activities suggested here. The goals do not have to be implemented in any particular order.

Part one of this manual offers a theoretical perspective on social reciprocity interventions for children and families. Based on the research findings, key behaviors that strengthen social reciprocity are identified and curriculum goals based on those key behaviors are suggested. Evaluation data from the Charlotte Circle model demonstration project is reported.

Part two offers early intervention professionals curriculum goals and strategies for strengthening social reciprocity. Each curriculum section is divided into the following sections:

Value. This section states the value to the child and the family of intervention in the particular area.

Sample IFSP outcomes. Public Law 99-457 requires that IFSPs be written for families of children between 0 and 2 years of age who receive early intervention services. The sample IFSP outcomes in each section suggest ways for early intervention teams to include social reciprocity goals in each child's program.

Theoretical perspective. A review of the professional literature in early intervention and child development details theoretical perspectives and previous research in that area.

Early interventionists' guide. This section provides strategies and materials for intervention in that particular area. The material is presented in lessons. Each lesson can be implemented in a meeting with individual families or small groups of families.

Data collection strategies. Each section of part two closes with suggested strategies for monitoring and evaluating progress in each curriculum area.

Parent handouts. Handouts that are designed to be duplicated and distributed to participating parents or caregivers accompany most sessions. Although most handouts are self-explanatory, they are best used in the context of consultation with an early intervention specialist. Handouts generally follow one of these formats:

1. Diaries. Guided observations of a child's behavior or parent-child interactions.

2. Data collection sheets. Charts to document the efficiency of interventions.
3. Suggested activities. Lists of activities that parents and children can enjoy together to strengthen social reciprocity.

Part three discusses the contexts in which these interventions can be implemented—in the community, in school, and in therapy sessions, as well as at home.

Because many of the interventions detailed in this guide suggest rewarding children for responding and making progress, the appendices provide guidelines for identifying and selecting reinforcers for children and a list of possible reinforcers.

Part 1

Theoretical Overview

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with body extension and retraction instead of the expected molding to the parent's body (Langley 1980). Such behavior may cause a parent to feel rejected by the infant, or the infant may seem to be expressing physical discomfort. Over time, the parent may begin to feel ineffective as a caregiver, which will further complicate and impede positive interaction with the child.

In addition to feeling love and affection from their child, parents need to feel competent about handling their child and meeting their child's needs, and to observe positive changes in response to their caregiving. The reinforcement for their interactive behaviors is available almost exclusively from the child. The child's atypical responses may inhibit the development of interactive behaviors because many expected, typical reinforcers are not available. The child, on the other hand, needs a nurturing environment containing activities that facilitate development; paradoxically, many of these activities occur in the interactive relationship which the child's behavior inhibits. Intervention to enhance reciprocal social interactions would seem, then, to benefit both the parents and the child.

Social reciprocity interventions are treatment services that acknowledge and focus on the reciprocal and circular nature of parent-child interactions (Bell 1974). In recent years, the focus on parent-infant interaction has generated increased research interest in treatments to promote interaction, including turn-taking instruction, interactive coaching, and guided interventions, as well as social reciprocity interventions (MacDonald and Gillette 1986; Mahoney, Powell, and Finger 1986; McCollom 1984; Snell 1987).

The goal of *Charlotte Circle Intervention Guide for Parent-Child Interactions* is to enhance the quality of interaction between children with disabilities and their caregivers. Whereas most interaction intervention research has focused on modifying the adult's behavior (Sandall 1987), the material in this guide includes interventions to influence the child's behavior as well, in an effort to strengthen the reciprocal nature of mutually satisfying social interactions. Developing satisfying interactions with parents and other caregivers is age-appropriate and functional "work" for very young children and is a central part of the child's development during the first three years (Barrera and Rosenbaum 1986; Rosenburg and Robinson 1988). These relationships will lead to increased stimulation, attention, and support. By expanding children's repertoires of interactive behaviors, we can help them influence their world in positive ways and enhance the quality of life of children and their parents.

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What Is Social Reciprocity?

Social reciprocity refers to the ongoing interactional process between infants and their primary caregivers (Bromwich 1981). The process is set into motion as the infant gives signals or behavioral cues to a parent, who interprets and responds to these cues. The parent, in turn, gives signals that the infant gradually learns to read. This mutual learning to understand and respond to each other's cues forms the core of a complex interactional system that influences the child's development (Brazelton, Koslowski, and Main 1974).

The concept of bidirectional influence on the child and the environment was introduced formally by Bell in his reexamination of the literature on early socialization. Bell (1974, 15) defined the *parent-child system* as "... a reciprocal relation involving two or more individuals who differ greatly in maturity although not in competence, in terms of ability to affect each other." Not only is the infant or child influenced by its social world, but the child in turn influences the world. Behavior occurs in the context of social interaction. The infant's behavior may occur in response to a parental behavior or may initiate parental behavior. For example, Lewis and Lee-Painter (1974) found that 44% of infant behavior occurs during interaction, with smiling always being a response and babbling frequently being a response to another's behavior.

The reciprocal and circular nature of parent-child interactions can be understood in behavioral terms as well. The behavior of the child affects the behavior of the parent which, in turn, affects the behavior of the child. The parent's response serves as an antecedent prompt for the child's response, which then serves dually as a consequence for the previous parent behavior and as a prompt for the parent's subsequent response. This pattern of interaction, a *stream* of behavior (Delprato 1986; Schoenfeld 1972), may be interrupted at any point by dysfunctional responses. If, for example, the child's response is not reinforcing to the parent, then one may expect those parental initiations to decrease in both frequency and quality.

Social reciprocity issues may be of great importance for young children with severe disabilities and their families. A review of observational studies of such mother-infant dyads reveals a typical interaction pattern: Mothers of young children with mental retardation initiate fewer interactions and are less likely to respond positively to their children than are mothers of nondisabled developmentally matched children (Tyler, Kogan, and Turner 1974; Ramey et al. 1978; Burkhalt, Rutherford, and Goldberg 1978; Cunningham et al 1981; Eheart 1982; Brookes-Gunn and Lewis 1982; Crawley and Spiker 1983; Hanzlik and Stevenson 1986; Levy-Shiff 1986). In these studies, children with mental retardation were also found to be less responsive: They laughed, smiled, socialized, vocalized to, and moved toward their parents less often than did nondisabled children.

The reciprocal nature of parent-child interactions may be disrupted or distorted as a function of certain characteristics associated with severe or profound disabilities, including (a) nonresponsiveness—the child's inability to "take in," thrive on, and feel comfort; (b) atypical motor responses; and (c) atypical daily living needs (Ramey, Beckman-Bell, and Gowen 1980). For example, a parent's attempts to cuddle an infant with severe motor problems may be met

What Are the Key Behaviors that Support Social Reciprocity?

The Charlotte Circle Project has conducted research to identify key behaviors that contribute to enhanced relationships (Rose, Spooner, and Calhoun 1988). One observational study explored which child behaviors are most likely to follow a given parent behavior and vice versa; taken together to form a behavioral stream, these parent and child behaviors support socially reciprocal interactions.

The participants in the study were eleven children with severe disabilities who were younger than three years of age, and one parent for each child. Parent-child interactions were videotaped in four contexts, which were selected to provide a wide variety of interaction situations: feeding, dressing, parent teaching the child a new skill, and parent's choice of a favorite free-play activity. The following two-digit codes were developed for recording specific behaviors and indicating whether the child or parent produced the behavior. These codes were adapted in part from Greenspan and Leiberman's (1980) work in analyzing parent-infant interactions.

Table 1. Behavior observation codes

Parent Behavior	*Child Behavior*
11 Smiles	21 Smiles
12 Vocalizes	22 Vocalizes
13 Holds/strokes/touches (affectionate touch)	23 Touches parent
14 Orients toward child	24 Orients toward parent
15 Initiates activity	25 Interacts with parent
16 Bobs and nods	26 Stereotypic behavior
17 Disengages (looks or turns away)	27 Disengages (dull-looking; looks or turns away)
18 Abrupt handling	28 Cries

Data were analyzed using a sequential lag analysis procedure. The observations revealed that the child behaviors which were least likely to occur were vocalizing, smiling, and touching the parent. The behaviors most likely to occur were disengagement and crying, as well as interactive responses. The children sometimes imitated the parent's most recent behavior: Most child vocalizations, for example, occurred in response to parent vocalizations.

In a related study, seven parents of young children with severe disabilities were asked to respond to two open-ended questions. Parent responses were audiotaped, transcribed, unitized, and categorized (Guba and Lincoln 1981). The questions and most frequently reported responses follow:

1. When you are with your child, what behaviors are pleasant, fun, or rewarding for you? In other words, what behaviors cause you to want to continue to interact with your child?

   Responses

   Child grins, laughs, or smiles

   Child imitates parent behavior; playfulness; anticipates parent's behavior

   Child attempts to communicate (both receptive and expressive), including cooing, singing, babbling, special sounds, responses to verbal requests

2. When you are with your child, what behaviors are difficult, stressful, or uncomfortable for you? In other words, what behaviors cause you to want to end an interaction with your child?

   Responses

   Child cries; does not want to be held; demonstrates poor soothability

   Child is passively unresponsive; "tunes out"

   Child emits atypical motor responses

Taken together, these two sets of data tell an important story. Child behaviors that parents identified as being reinforcing were among the most infrequent responses (specifically, smiles, vocalizes, touches parents). Unfortunately, the child behaviors identified as most stressful and non-reinforcing were among those that occurred most often (specifically, disengages, cries).

Thus, to strengthen parent-child social reciprocity, it is important for children to expand their repertoire of behavior to increase their social responsiveness to caregivers through smiling, communication (including vocalization), and playful interaction. It is also important for children to decrease behaviors, such as crying, that parents identify as stressful, aversive, and unpleasant.

Curriculum Goals Based on Key Behaviors

The goals outlined in the *Charlotte Circle Intervention Guide* are based on our understanding of the importance of social reciprocity and the key behaviors that support social reciprocity. Most goals are designed to help children learn behaviors that will increase pleasure and fun in interaction. Because parents identified crying as the most stressful behavior, goals that increase parents' ability to manage and comfort crying are also included. Curriculum goals and strategies are developed in the following areas:

increasing smiling
increasing playfulness
increasing imitation
increasing early communication
increasing the child's ability to relax

As these behaviors increase, many of the behaviors that parents find difficult, stressful, and uncomfortable can be expected to decrease because they are not compatible with the new behaviors. For example, if a child becomes more playful and imitates more, then the child's unresponsiveness will decrease. As another example, if a child is better able to relax, the child's "poor soothability" will be ameliorated.

While most goals in the curriculum guide are expressed in terms of changes in the child's behavior, instructional strategies are geared to helping parents read and respond to their children's behavior and elicit the desired responses. The desired outcomes, then, support both children and their families in the important work of caring for and responding to one another.

Description of the Charlotte Circle Model Demonstration Project*

This curriculum guide was developed as part of the Charlotte Circle Project, a model demonstration project funded from 1985 through 1988 by the Handicapped Children's Early Education Program (HCEEP), Office of Special Education Program, U.S. Department of Education. The project was operated by the University of North Carolina at Charlotte in collaboration with St. Mark's Center, Inc., a private, nonprofit agency providing educational and therapeutic services to individuals with developmental disabilities in Mecklenburg County, North Carolina, an area with a population of approximately 500,000.

The project developed a classroom-based and home-based model of service delivery. Classroom instruction occurred from 9:00 a.m. to 1:00 p.m. daily. Parents could enroll their children for three or five days a week, with optional extended hours for day care. Transportation was provided for families who needed this service, and early intervention was provided on a twelve-month basis. The classroom component provided intensive early education services while serving as a laboratory for the development of effective social reciprocity interventions for each child in the program.

The classroom staff included two special education teachers, one certified occupational therapy assistant, and one paraprofessional. Community volunteers and university students provided important instructional assistance. Consultants in speech therapy, occupational therapy, physical therapy, family services, and pediatrics were available as needed.

Monthly home visits were scheduled for each family. The purposes of the home visits were to jointly establish the child's goals, to share information with important people in the child's life (including grandparents, siblings, and babysitters), and to provide instruction and support in areas of need identified by the parents. Other family services included special parent-child days in the classroom and quarterly Family Night programs, with covered-dish supper. Child care was provided while parents met with a facilitator to discuss a selected topic.

Twenty-five children were enrolled in the project during the three-year period. They ranged in age from birth to three years and were identified as having severe disabilities according to this definition: The children (a) functioned in the severe range of developmental delay (at least four standard deviations below the mean on a particular developmental or cognitive test); or (b) exhibited severe functional difficulties or complex and multiple sensorimotor

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*This section is adapted from Rose, T. L., and M. L. Calhoun (1990). A program for infants and toddlers with severe/profound disabilities. *Journal of Early Intervention* 14, 175-85.

disabilities that, without intervention, placed them at risk for severe retardation or developmental delays.

The mean age at the time of admission was 18.9 months, with a range of 7 months to 33 months (median age was 22 months, with modes of 22 months and 23 months). Diagnoses at the time of admission included mental retardation, cerebral palsy, microcephaly, and hearing and vision losses. Etiologies of the handicapping conditions included prenatal infections (herpes simplex and CMV), prenatal asphyxia, hyaline membrane disease, meningitis, respiratory distress syndrome, prematurity, and stroke.

Evaluation of the Project

The success of the project was evaluated in terms of (a) changes in children's test scores, (b) accomplishment of social reciprocity goals, (c) post-project placements, and (d) participant satisfaction.

Changes in children's test scores. Systematic standardized testing of the students began in January 1986, using the *Developmental Activities Screening Inventory II (DASI-II)* (Fewell and Langley 1984). The *DASI-II* yields Raw Scores, (measures of performance of specific behaviors, for example, smiles to physical contact, swipes at toy), Developmental Age (analogous to mental age), and Developmental Quotient (analogous to intelligence quotient).

Children were first tested within one month of their enrollment in the project and again within eight or nine months. All children who reached the 36-month age limit for the project were tested again prior to discharge. The mean interval between pre- and post-testing was 7.6 months (median interval = 4.5 months), due mainly to the varying ages at which students entered the program.

The following table shows mean pre- and post-test scores for the nineteen children enrolled in the program long enough to participate in two evaluations:

Table 2: Change in pre-test and post-test scores on the DASI-II

Variable	*Pre-Test Mean*	*SD*	*Post-Test Mean*	*SD*	*Difference*	*p Value*
Raw Score	10.9	5.7	15.5	7.6	4.6	<.001
Developmental Age	5.6	3.6	9.5	6.1	3.9	<.002
Developmental Quotient	29.1	14.9	32.6	23.0	3.5	<.09

These data were examined using the Proportional Change Index (PCI), which is a ratio of the child's actual developmental rate to the developmental rate predicted by the pre-test (Wolery 1983). The mean PCI for the Charlotte Circle Project students was 1.90. These data indicate that the students' developmental rates accelerated on average to almost twice the expected developmental rate.

Social reciprocity goals. Social reciprocity outcomes for each child and family were established jointly by family and staff through the IFSP process. Reports from the early intervention staff indicate that 72% of the individual objectives were met successfully.

Post-project placements. As of the May 1988 cutoff date, fifteen children had exited the Charlotte Circle Project. These children left the program for one of

four reasons: they reached their third birthday and "graduated" (n = 9, 60%); family moved (n = 3, 20%); prolonged illness/hospitalization (n = 1, 7%); or death (n = 2, 13%). The success of the Charlotte Circle Project is supported in part by the subsequent placements of the students. Five of the nine students for whom information about subsequent placement was available were receiving educational and therapeutic services in less restrictive educational settings. Two students were placed in a mainstreamed preschool and day-care center in which 90% of the students were nondisabled. The other three students were placed in preschool programs for children classified as mildly or moderately handicapped. The remaining four project graduates were enrolled in preschool at St. Mark's Center, which is the predicted setting for children with severe/profound disabilities. Thus 56% of graduates for whom follow-up information is available are attending less restrictive programs.

Participant satisfaction. The families of children enrolled in the project were surveyed at the conclusion of the project. Fifteen families responded (of 20 receiving questionnaires) and their responses are summarized in Table 3. Note that social reciprocity skills are especially reflected in the first nine items. Overall, this evaluation of the model demonstration project indicated positive changes in what children were able to do and in parents' sense of competence and reward in meeting the special needs of their children.

Table 3: Parent satisfaction with the Charlotte Circle Project

Responses are listed in order of decreasing mean scores.

Item	*Value*	*Response Frequency*	*Mean*
Since enrolling my child in the Circle Project:			
Child's Responsiveness to Parent			
Has decreased	1	0	
About the same	2	0	3.0
Has increased	3	15	
Feeling Responsive to Child's Needs			
Less responsive	1	0	
About the same	2	3	2.8
More responsive	3	12	
Parenting			
Is less rewarding	1	0	
Rewards about the same	2	3	2.8
Is more rewarding	3	12	
Routine Caregiving (such as handling, feeding)			
Is more difficult	1	0	
Is about the same	2	3	2.8
Is easier	3	12	

Table 3: Parent satisfaction with the Charlotte Circle Project (*cont.*)

Item	*Value*	*Response Frequency*	*Mean*
Ability to Deal with Reactions of Others to Child			
Am less able	1	0	
Has remained the same	2	3	2.8
Am more able	3	12	
Feelings of Parental Adequacy			
Less adequate	1	0	
About the same	2	5	2.7
More adequate	3	10	
Family Life			
Seems less normal than before	1	0	
Seems about the same	2	4	2.7
Seems more normal than before	3	11	
Marital Stress			
Has increased	1	1	
Is about the same	2	4	2.6
Has decreased	3	9	
Parental Interaction and Play with Child			
Occurs less often	1	0	
Occurs about the same	2	7	2.5
Occurs more often	3	8	
Sibling Interactions and Play with Child			
Occurs less often than before	1	0	
Occurs about the same	2	6	2.4
Occurs more often than before	3	4	
No other children	0	5	
Parent Interactions with Siblings			
Spend less "quality" time	1	1	
Spend about the same amount	2	4	2.4
Spend more "quality" time	3	5	
No other children	0	5	
Financial Pressures			
Seem greater	1	0	
Seem the same	2	9	2.4
Seem less	3	5	

Part 2

Curriculum Goals and Strategies

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Increasing Smiling

Value

The smile of an infant or young child has an important communicative function: A parent or caregiver usually interprets it to indicate that the baby has increased both attention and involvement in an interaction. The caregiver usually responds to the child's smile by increasing stimulation. Smiles, then, play an integral part in the development of reciprocal interactions by reinforcing the attentive behaviors of caregivers, encouraging repetition of actions, and promoting a "circle" of positive interactions. Infants and young children with severe disabilities may have different smile patterns from those of their nondisabled peers: Smiles may emerge later, may lag after the caregiver initiates an interaction, and may be used much less frequently to initiate a social exchange (Rose, Calhoun, and Ladage 1989).

While "teaching" smiling may seem very difficult, early intervention programs for children with severe disabilities can facilitate the development of social smiles by establishing a routine of games and activities that are associated with smiling in young children.

Sample IFSP Outcomes: Increasing Smiling

Outcome #1

Parents will develop skills necessary to identify smile responses that are precursors to fully developed social smiles.

Outcome #2

Parents will develop skills necessary to identify environmental stimuli that prompt their child's social smiles.

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Outcome #3

Parents will learn that social smiles are acquired developmentally.

Outcome #4

When their child smiles at a developmentally appropriate, but chronologically immature level, parents will interpret their child's behavior as a social smile.

Outcome #5

Adults who care for the child will develop an acceptance of, and receive social reinforcement from, the child's developmentally appropriate smiling behavior in social interactions.

Outcome #6

The adults who care for the child will learn instructional strategies to teach more age-appropriate social smiles.

Outcome #7

The child will learn to smile in a more age-appropriate manner.

Theoretical Perspective

The infant's smile has interested psychologists since the nineteenth century, in large part because smiling is viewed as a significant developmental milestone. For example, Dearborn (1897) and Darwin (1900) classified smiling behaviors by infants at different age levels and informally identified some stimuli that seemed to elicit smiling responses. These early attempts at classification yielded more biographical information than empirical evidence but, nevertheless, they established an emphasis on descriptive research that has persisted until today.

The first empirically based observational study of smiling by infants was conducted by Washburn (1929). Beginning with such rudimentary questions (from our perspective more than a half-century later) as, Can smiles be differentiated according to the age of the child? and, Is the behavior similar in all infants or are there individual differences? she observed 15 children every 4 weeks for 52 weeks. Children were at least 8 weeks old when they began participation and were dropped from the study upon reaching 52 weeks of age. Washburn found that smiles of older infants can be differentiated from those of younger infants and that developmental differences seemed more important than individual differences.

Of equal significance, Washburn brought experimental rigor to the identification of stimuli that elicit smiling. Certain stimuli were found to be more effective than others for all infants studied, as well as for the same infant at different ages. Finally, Washburn found great individual differences in the frequency of smiling for different children (some infants consistently smiled more often than others) but found fewer differences in the form of the smile.

Given Washburn's thorough classification of smile responses at different age levels, others began to investigate the potential of various stimuli for eliciting smiles from infants. For example, Emde, Gaensbauer, and Harmon (1976) elicited smiles from infants in the first two months of life in response to various kinesthetic, auditory, tactile, and visual stimuli.

Research regarding the social smiles of infants with handicapping conditions has focused on the same issues studied in normally developing children. Much of this research has been with children with visual impairments, and only recently have researchers investigated social smiling in infants with other types of developmental delays.

Early researchers concluded that smiling by blind infants had a normal age of onset but diminished over time because visual reinforcement was not available to the child (Freedman 1964). A later study found that social smiling developed at a normal age (between 2 and 3 months of age) and could be elicited by auditory and tactile stimuli (Fraiberg 1977). Furthermore, parents elicited social smiles regularly throughout the child's first year using vocal inflection and tactile stimuli such as tickling, bouncing, and nuzzling. Smiles increased during the first few months but did not decrease during the 6- to 12-month period, as is true with sighted infants. Finally, blind infants did not smile indiscriminately at any time during their first year. Fraiberg observed consistent, discriminate social smiling in response to the mother's voice as early as two months of age. She concluded from her research that, unlike sighted infants, blind infants did not use smiles to initiate social interaction, but only in response to interaction initiated by another.

Rogers and Puchalski (1986) conducted a longitudinal study that extended the findings of earlier research and sought to resolve some differences between Freedman's (1964) and Fraiberg's (1977) findings. Specifically, Freedman reported that social smiles decreased in frequency during the first year whereas Frailberg concluded that social smiling increased during the first six months and then stabilized. Rogers and Puchalski's findings supported a developmental explanation for the onset of social smiling because the infants in their study demonstrated *circular reactions.* In other words, the smiles of these infants were in response to developmentally appropriate stimuli and affected the parent positively, so that the interaction was maintained. They concluded that blind infants had the same level of cognitive development as sighted infants when they began smiling. They found a decrease in smiling at 8 to 9 months but were cautious in their interpretation of this finding because of potential methodological difficulties. They also found evidence to support Frailberg's conclusion that blind infants' social smiling was responsive rather than being used to initiate social interactions. Smiling functioned to continue interactions because every infant smile was followed by another social behavior from the parent. The author concluded that the differences between the social smiles of blind and sighted infants may not be as significant as previously thought.

Research into social smiling by sighted children with disabilities is scarce but, in general, is consistent with previous research with blind infants and nondisabled infants. Rose, Spooner, and Calhoun (1988) observed interactions between infants with severe/profound disabilities and their parents and found

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Spitz (1946) added to our knowledge of smiling by investigating the effects of several stimuli on smiling in children from birth to 12 months. Spitz reported that smiling did not occur with any notable frequency until the age of 2 months. He also reported that children rarely engaged in indiscriminate smiling between the ages of 8 to 12 months; they were not likely to smile at an approaching stranger. Finally, Spitz found that the child's race or socioeconomic status was not related to smiling responses. In confirmation of Washburn's previous findings, Spitz reported that certain stimuli were more effective than others in eliciting a smile, but toys were never effective.

Explanations of the developmental nature of social smiling have been offered by several researchers. For example, Spitz (1959) hypothesized that the emergence of smiling marks movement to a significantly higher level of neurological organization that results in advances in the infant's cognitive and affective development. According to Spitz, the first milestone is marked by the behavioral shift from nonsmiling to smiling, and the infant initially smiles in response to many different stimuli. After this change, smiles gradually become more specific and social, so that by three months of age an infant smiles primarily at other people. In the next few months, smiling becomes even more specific, until the infant smiles primarily at familiar humans. Although these latter developments may reflect learned behavior, Spitz concluded that the original shift from nonsmiling to smiling was maturational.

Other researchers pursued new research directions trying to understand the affective meaning of smiles. Bowlby (1969) interpreted the infant's preference for smiling at family members as an indication that a specific bond had been established. Smiles were viewed as both socially reinforcing and communicative; greater proximity to the mother was an outcome of the infant's smile, and the smile also provided a way for the child to "call" the mother or to maintain her presence. This finding was also supported by Stroufe and Waters (1976). Robson and Moss (1970) interviewed 54 first-time mothers, who reported that strong affection for the infant was first reported after the infant had begun to make eye contact and smile. Affectionate maternal behaviors have been found to increase as infant smiling, vocalization, and eye contact increase (Moss 1967); more specifically, smiling and vocalizations by infants elicit similar behaviors from adults (Gerwitz and Gerwitz 1969) and an increase in the parents' stimulation of the child (Ewy 1986). The infant's social smile appears to be one social behavior that is integral to the positive reciprocal relationship between child and parent (Wolff 1963) and demonstrates that natural infant behaviors are effective in causing and reinforcing adult attention and caretaking (Goldberg 1977).

Smiling by infants with disabilities. Having identified the chronological ages (CA) at which these behaviors occur in normally developing infants, researchers postulated the developmental ages (DA) at which these behaviors may be expected to occur. The implication for infants with disabilities is that, while it may be unreasonable to expect smiles to occur at a chronological age similar to a nondisabled child, caregivers may extrapolate these chronological ages to their child's developmental age. The infant with disabilities can be expected to proceed through the same developmental steps in the same order as a normally developing infant.

Intervention studies to teach smiling responses to normally developing infants are virtually nonexistent. We may conclude that, given the developmental nature of smiling, researchers thought that intervention was unnecessary because smiling would begin when the child was developmentally ready.

that the infant's smile preceded the parent's smile in 77% of the instances in which parents smiled at their children. The infants, on the other hand, were most likely to smile at their parent following the parent's vocalization or smile. The authors also conducted interviews with parents of severely disabled children in which the parents identified smiling as one of the most significant and rewarding behaviors of their child. These findings support those reported previously for nondisabled infants (Gerwitz and Gerwitz 1969; Robson and Moss 1970). Kuczera (1989) reported that infants with severe disabilities smiled in response to social stimuli, either auditory (high-pitched or playful voice) or physical (gently blowing air at the infant's face, hands, or body, or physically guiding the child's hands through "pat-a-cake"). They did not smile in response to inanimate objects such as balls, rattles, and pop-up toys.

Research results reveal a significant difference between infants with severe disabilities and nondisabled infants in the relative chronological ages at which similar responses occur. The children in Kuczera's (1989) study, for example, were 104, 122, and 52 weeks old when her study began. Washburn (1929) observed that smiling in response to either auditory social stimulation or rhythmical hand clapping may be expected to begin at 8 weeks of age. Clearly, there is a significant developmental delay in the age at which an infant with severe/profound disabilities may begin to emit social smiles.

Given the profound significance of the infant's social smile to the interactive relationship between parent/caregiver and the infant, we cannot advise parents to wait until this milestone occurs naturally or spontaneously, because the wait may be two years or more. During those two years, the parent will interact with the infant in countless ways. But, consider the feedback the parent receives for those interactions: no signs of joy or happiness, no smile that other family members or even strangers will recognize. Therefore, we must begin to consider a social smile as an important behavior for the infant with disabilities to acquire and use because of the effects that behavior will have on the infant's environment.

Early Interventionists' Guide: Increasing Smiling

A series of seven lessons is presented, with corresponding parent handouts, to help families increase the social smiling of their child. These strategies are designed to be implemented by families with the help and support of the early intervention staff.

The early intervention staff can present lessons 1 to 3 to small groups of parents and caregivers, but individual meetings are suggested after parents have completed the checklists because the interpretation of these data should be individualized. Lessons 4 through 7 will be most effectively implemented with individual families, because each child will have different instructional needs. The basic principles of each lesson, however, can be presented in brief, small-group family meetings. Families can provide the instruction outlined in lessons 4 through 7 at home with consultation and support from the early intervention staff, or this instruction can be provided by staff in a center-based program.

Lesson 1: A Smile Is a Smile, or Is It?

MATERIALS NEEDED What Do I Look For? handout and checklist

PURPOSE This activity is for the family of a child who does not produce social smiles reliably. If the child smiles, but perhaps not often enough or at inappropriate times, skip to the next activity.

Social smiles appear to develop out of several developmentally ordered pre-smile behaviors. Parents and caregivers usually are not aware of the presence or meaning of these prerequisite smile behaviors. If interventionists and parents become attuned to these behaviors, two important goals can be realized. First, the occurrence of one or more of these responses may help guide intervention efforts by identifying the child's developmental level with respect to smiling. Certain activities will be more effective in eliciting smiles at specific developmental stages. Second, caregivers may learn to accept these prerequisite responses (at least temporarily) as social reinforcers for interactions with the child. A parent may learn that a round, open mouth is a "smile" at this stage or may learn to notice and interpret a small twitch of the lips as a smile; previously the parent may have overlooked those responses or misunderstood their meaning.

STRATEGIES Distribute the What Do I Look For? checklist and instructions to families (or staff).

1. Explain the rationale for observing these prerequisite smile behaviors.
2. Ask the family to make a commitment to complete the checklist and return it at the next meeting.
3. Familiarize yourself and the family with the behaviors described on the checklist. Go through each step of the instructions, highlighting these points:
   - The "games" should be fun.
   - Give the child time to respond. Wait about ten seconds before repeating an activity. Parents may count to themselves ("one thousand one, one thousand two . . ."). Explain that this may seem a long time, but the wait will be worth it if they see that smile.
   - Parents should observe the child during the ten-second turn-taking period and record every smile response they see.
   - They do not have to complete all activities in the same session.

4. You may encourage the parent to write short notes on the checklist that may help to identify, for example, which activity the child seemed to like best.
5. After the family returns the checklist, discuss their findings with them. Explain how their child is "smiling" in a developmentally appropriate way, even if the behavior doesn't look like a smile at this point.
6. Complete the checklist yourself. This will give you more sensitivity in identifying proto-smiles and also allow you to confirm the parent's findings. Remember that the child is more likely to smile for the parents than for you.

   The What Do I Look For? checklist can be completed several times a year as a way to collect performance data. More advanced smile behaviors should be observed as the child's developmental age increases. This is also an excellent way to demonstrate to parents that the child is making progress, especially when the gains are small.

Lesson 2: When Does My Baby Smile?

MATERIALS NEEDED Smile Survey

PURPOSE This activity is designed to help identify those stimuli to which the child responds by smiling. This information will be helpful in planning interventions and in making caregivers aware of the situations in which the child smiles. Research on the social smiles of infants allows us to conclude that learning to smile and learning to use the smile socially are related to the child's developmental age. Some children beginning this activity will produce only the prerequisite smile behaviors that were the focus of the first session. Other children already will have acquired the social smile response but may use the smile inappropriately. Ideally, the child will smile at the family member's or caregiver's face and voice, in addition to various other social and environmental stimuli. In other cases, the parent or caregiver may have noted informally that the child smiles in response to various stimuli but not regularly as part of social interaction.

As an interventionist, you must keep in mind that children begin to smile much more selectively sometime between 6 and 12 months DA. Consequently, you may not notice social smiling in the context of the early intervention setting because the child has learned to discriminate family members from other people. The child may smile quite freely at home. The Smile Survey is an excellent way to verify whether the infrequent smiles you note are typical of the child's behavior at home.

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The stimuli listed on the Smile Survey are examples of stimuli that elicit social smiles from infants at various developmental ages. For your information, a more complete listing follows. Remember that the listed ages are approximate and represent the midpoint of a range rather than a target age.

Table 4. Stimuli that elicit social smiles

Stimulus	*Approximate Developmental Age of Onset*
Bird whistle	1 month
Clear high-pitched brass bell	1 month
High-pitched voice	1 month
Low-level tactile/kinesthetic stimulation	1 month
Blowing on skin	1 month
Human voice (and nodding head)	1 month
Hand or object moved quickly across infant's field of vision when infant is staring	1 month
Masks, sunglasses	1 month
Social/verbal stimulation	2 months
"Peek-a-boo" (cloth over face)	2 months
Rhythmical knee-drop	3 months
Threatening face (saying "boo")	4 months
Tickling	4 months
"Peek-a-boo" (cloth between parent and child)	5 months
Sudden disappearance and reappearance	5 months
Rhythmical hand clapping ("pat-a-cake")	5 months

Note: All nonvisual stimuli elicit smiles from blind infants at approximately these ages. Apparently, tactile and kinesthetic stimuli are most effective up to about two months of age; after two months, auditory stimuli, especially parents' voices, become significant as well.

STRATEGIES Distribute the Smile Survey and instructions to families (or staff).

1. Explain the rationale for observing the child's responses to the various stimuli listed in the Smile Survey.
2. Ask the parent to make a commitment to complete the survey and return it at the next meeting.
3. Familiarize yourself and the parent with the stimuli on the survey.

4. Go through each step of the instructions with the parent, highlighting these points:
   - The "games" should be fun.
   - Give the child time to respond. Wait about ten seconds before repeating an activity. Parents may count to themselves ("one thousand one, one thousand two . . ."). Explain that this may seem a long time, but the wait will be worth it if they see that smile.
   - Parents should observe the child during the ten-second turn-taking period and record every smile response they see.
   - They do not have to complete all activities in the same session.
5. You may encourage the parent to write short notes on the Smile Survey that may help to identify, for example, which activity the child seemed to like best.
6. After the parents return the Smile Survey, discuss their findings with them. Explain how the child is "smiling" in a developmentally appropriate way, even if the behavior doesn't look like a smile.
7. Complete the Smile Survey yourself. This will allow you to compare the smiling you observe in the clinic to the parents' findings. Remember that children are more likely to smile for their parents than for you and that some items on the survey are geared to a home setting rather than an intervention setting.

The Smile Survey can be completed several times a year as a way to collect performance data. More advanced smile behaviors should be observed as the child's developmental age increases. For example, a child who reaches the 8- to 12-month DA range may begin to smile more selectively and may smile only at family members for a period of time. The survey is also an excellent way to demonstrate to parents that improvements are occurring, especially when the gains are small.

Lesson 3: Checking It Out

MATERIALS NEEDED completed What Do I Look For? checklist

completed Smile Survey

PURPOSE With consultation from program staff, caregivers will try to identify the smile behaviors their child uses and the stimuli that prompt smiles. During this session, both parents and interventionists will look closely at the child's smiling to test these hypotheses. If the patterns of responding conform to an approximate developmental age, then instructional activities can build on that knowledge

to move to the next level, both in terms of the child's type of smile response and the type of stimuli responded to.

STRATEGIES

Review with parents the completed What Do I Look For? checklist and the Smile Survey. Try to determine patterns of responding that seem to conform to a particular developmental age. Include the following types of questions to prompt discussion:

How often does your baby smile?

Does smiling occur more often at certain times of the day?

Are there other activities that seem to please your baby?

If the child smiles with any regularity in response to the parents' voices or facial expressions, ask questions regarding the frequency and latency of the smile response. *Frequency* refers to how often the child smiles in response to these highest-level prompts. While there will never be a one-to-one correspondence between the parent's prompt and the child's smile (nor should there be, since none of us smiles every time someone speaks to us or smiles at us), the child should smile at a fairly high rate. The time that elapses between the parent's prompt (vocal or facial) and the beginning of the child's smile is the *latency* of the response. The latency for this type of behavior should be relatively short, certainly less than three seconds.

POSSIBLE INTERVENTION GOALS

Explore with the parents the value of frequency or latency as intervention targets. Latency is an important, frequently overlooked behavioral characteristic that may emerge as an intervention target after discussion with parents.

Another important avenue of investigation if the child smiles regularly in response to the parents is the purpose of the smile. Does the child smile only in response to another's smile or to initiate an interaction or as a means of communication?

You may discover that the child smiles consistently only to lower-level (nonhuman) prompts. Intervention should then identify these lower-level prompts and pair them with the parents' faces and voices, because the latter are the stimuli to which we want the child to attend.

Finally, if some prerequisite smile behavior is observed, but a fully developed social smile is not, that behavior then becomes the starting point for intervention. Teaching strategies will employ a shaping procedure that encourages the child to successively approximate the social smile that is so important to social interactions.

Lesson 4: Smiling at Mom and Dad

MATERIALS NEEDED none

PURPOSE Two objectives will guide intervention efforts in this lesson. The first objective is to develop a recognizable social smile. Thus, the pre-smile behavior serves as the starting point in a shaping procedure designed to teach new smiling behaviors to the child. The second objective is for the parents to learn to interpret this prerequisite smile behavior as a smile and respond to the "incomplete" smile as if it were a fully developed social smile. Prerequisite smile behaviors communicate the same messages as fully developed social smiles.

STRATEGIES Remember, the pre-smile behavior may be entirely appropriate for the child's developmental level. These suggested strategies help to speed the acquisition of progressively more advanced developmental smile responses. The process may be slow. Therefore, the most important objective is to help the parents to accept what their baby gives them and to interpret that response as a smile. If you are successful, the parents can learn to derive social reinforcement from their child's smiling at each step in the developmental process, even if this process stretches over years instead of months.

1. Using the information from the completed What Do I Look For? checklist, arrange situations in which the child is likely to smile.
2. Videotape the child in these situations. View the videotape with the child's parents, pointing out each time the child smiles. Gradually let the parents take over identifying smiles. If you do not have access to videotaping equipment, arrange a free-play situation at the family's home in which you and the parents can prompt the child's smile.
3. Speak to parents positively about how appropriate this smile is for a child at that developmental level. Downplay chronological age. Discuss individual differences. Discuss positively, but realistically, that their child will develop a smile, but it may take longer than they expect. Let the parents talk freely about their feelings. Engage in active listening, but try to guide them to the point where they understand and accept the information you're trying to convey. This may require several meetings.
4. To support your efforts and the parents' newfound acceptance of the way their child's smile will look for a while, have them complete the What Do I Look For? checklist periodically, particularly when you've noticed some successes. Periodic videotapes demonstrating the child's progress are also quite helpful. Because the

gains may be small and slow in coming, any evidence of progress that you can provide will help the parents maintain their positive feelings and the energy necessary to continue intervention.

TEACHING NEW SMILE RESPONSES

The second instructional objective is to speed up the developmental process by teaching new smile responses that are progressively more recognizable as a social smile. Remember that this teaching may be a slow process to achieve a target behavior which will probably develop in time whether you intervene or not. It is, nevertheless, an important objective because this behavioral deficit can be a real stigma for the child and family. A two-year-old child who does not smile in a social interaction will not experience true socially reciprocal interactions and will appear noticeably different from normal children.

The following instructional steps are required:

Task analyze the smile

Identify reinforcers

Model appropriate smiles

1. Use the What Do I Look For? checklist to identify the type of smile the child is currently using most frequently. The responses within each category on the checklist are arranged in developmental order, so that "twitching of the lip" can be expected to occur before "round, open mouth." Each category is independent, however; the child can give a facial response, a bodily response, and a vocal response. Use the arrangement of behaviors in each category as an approximate skill sequence. Beginning with the behaviors the child currently uses, work to develop progressively more advanced behaviors. Keep in mind, however, that each child is different, and some may smile in ways that are not listed. Remember, too, that individual children may not follow the exact sequence listed on the form but will still be making progress toward a fully realized social smile.
2. Schedule several teaching sessions each day, but keep the sessions brief. Several brief sessions will be more effective than one long session.
3. Attend to the child's smiles throughout the day. Provide instruction during the teaching sessions; provide attention and other reinforcement throughout the day. You want to teach the child to smile in natural situations as opposed to only in teaching situations.
4. Use the instructional strategies described in lesson 7. Initially, reinforce the child's present smile behavior at every opportunity. *Gradually* move to the next level of smile response by reinforcing anything that resembles it. Attend to the initial type of smile less and less as the new smile response begins to appear more frequently,

until you are not reinforcing the old smile anymore—only the new, more mature smile.

For example, Susan smiles by twitching her lips slightly. Initially, reinforce her lip twitches every time you observe them. After several sessions, you observe that as she twitches her lips, she also moves the corners of her lips upward ever so slightly. (This example illustrates that a child may not move through the exact skill sequence listed on the checklist. The child knows best!) Begin to reinforce her lip twitches less, but pour on the reinforcement for the upward lip movement. As this new response becomes part of Susan's repertoire, begin looking for the next level of response. As you can see, this training will require careful observation and your full attention during the instructional sessions, because the child may progress in very small steps.

5. Model social smiles constantly. Smile at the child every time the child smiles at you. Make this a natural game. You'll be working very hard, but the child doesn't have to know that!
6. Use physical prompts when appropriate. In the example of Susan, every time she smiles by twitching her lips, you might touch the corners of her mouth very lightly with an upward movement. Make this part of the game.
7. Smiling is a socially significant behavior, one that is critical to successful social interactions, but one that may develop chronologically late in children with severe handicapping conditions. But, every time you try to teach a more mature smile, you are "sailing into uncharted waters." Smiling has rarely been an instructional concern in the past; neither has teaching infants with severe handicaps. So, you become an instructional pioneer every time you teach this important behavior. These suggested strategies have been successful in teaching other types of behavior and have achieved some success in the Charlotte Circle class. But there is still a lot to learn. Remain optimistic, make the instructional sessions fun, and don't hesitate to try new strategies.

Lesson 5: Increasing Frequency

MATERIALS NEEDED pencil and paper

any specific materials necessary to implement a particular "smile strategy"

PURPOSE The child will increase the frequency of smiling, and thus, the level of reinforcement parents receive for engaging in social interaction. The activities described in lesson 5 are designed for use with the child who smiles in response to

the parents' voices or facial expressions but who may not smile frequently enough. Frequency refers to how often the child smiles in response to social prompts. The child should smile at a fairly high rate.

STRATEGIES

Using the parents' responses on the Smile Survey, identify two or three "smile strategies" (prompts) that encourage that particular child to smile.

1. Choose a time when the child is alert and relaxed. Try each prompt ten times, waiting about ten seconds between each prompt.
2. Repeat this procedure with a parent's help; have the caregiver smile and talk briefly to the child ten times, with a ten-second wait between each prompt. On the paper, list each prompt and then tally each instance of the child smiling in response to these various stimuli. After ten prompts, total the tally marks to determine the percentage of responding. Your data sheet may look like this:

Child:_____ Date:_____

Prompt	Teacher	Parent
High-pitched voice		
Pop-up toy		
Tickling (light)		

Several outcomes are possible: (A) The child will smile readily at almost every stimulus presentation. (B) The child will smile infrequently at almost every stimulus presentation. (C) The child will smile more frequently at the lower-level prompts than at the caregiver's voice or smiling face. Each of these outcomes implies a different intervention approach.

OUTCOME A

If the child smiles at more than 80% of all stimuli, and the duration of each smile seems appropriate (perhaps three to five seconds), congratulations! Skip the rest of this part of the curriculum guide.

OUTCOMES B AND C

If the child smiles infrequently to all stimuli—a response rate less than 80%—or smiles less often at human than nonhuman stimuli, then build appropriate activities into the child's program on a daily basis. Always arrange the sessions so the child can see the caregiver's smiling face

and hear the caregiver's voice while other, lower-level stimuli are presented. The goal is to pair all other stimuli with the face and voice of the caregiver, so the child will learn to respond to both. Reinforce the child after each smile (or even after each partial smile). Make sure the child is attending to the stimulus. For example, if the child smiles when being lightly tickled, make sure your face (or the parent's face) is an arm's length away from the child's face. Smile and talk to the child during the brief tickling episodes. Periodically just smile or smile and talk to the child without tickling. The child will learn to pair your smile and voice with tickling and with the smiling response to tickling. Eventually, as the child begins to smile at your smile or smile and voice, you can reinforce that smiling with hugs and discontinue pairing your face with tickling. This process may take some time, but be patient and be consistent. Program this activity frequently throughout every day. It won't take much time, and it will be successful.

Lesson 6: Decreasing Latency

MATERIALS NEEDED

stopwatch

pencil and paper

specific materials necessary to implement a particular "smile strategy"

PURPOSE

The activities in lesson 6 are designed to decrease response latency for the child who smiles in response to a parent's voice or facial expressions but waits so long to smile that the smiling response may be overlooked. This is important for several reasons: The parent may begin another interaction, thinking that the child "didn't smile at me that time." The child's smile may be misinterpreted because the child smiles at a previous prompt while another interaction is occurring. For example, the mother smiles at her baby. The child looks at her, but does not smile. Five seconds later, the mother shows her baby a toy and begins playing with her baby—and then the baby smiles. Was the baby smiling at the toy or at Mother's previous smile? If the baby has a long response latency, it may be difficult to tell.

STRATEGIES

Using the parents' responses on the Smile Survey, identify two or three "smile strategies" (prompts) that encourage that child to smile. Choose a time when the child is alert and relaxed. Try each prompt ten times. Begin timing with the stopwatch as soon as the prompt is completed. If the child does not smile after 15 seconds, record the time (15 seconds) and present the prompt again. Repeat this procedure with a parent's help; have the parent smile and talk briefly to the child ten times. Record the latency (time

between the end of the prompt and the beginning of the child's smile) of each smile that occurs in response to these various stimuli. After ten prompts, examine the latency data. If the latencies are more than 3 to 5 seconds for more than two of the prompts, these data indicate that latency should be an intervention target.

Here is an example of how your data sheet might look:

Child:_____ Date:_____

Prompt	Latency	
	Teacher	Parent
High-pitched voice		
Pop-up toy		
Tickling (light)		

In order to work on reducing response lag, use one or two smile prompts that have elicited smiles previously. Instruct the caregiver to do each activity (for example, lightly tickling the baby's arm), then wait quietly. When the child smiles, the caregiver should smile and respond with excitement and pleasure. If the child does not smile after 15 seconds, the caregiver repeats the stimulus and waits again. Note that if the child's typical response lag is less than 15 seconds (as determined by the previous observation), then set the child's typical response time as the maximum amount of time to wait for a smile.

Once the child smiles reliably within 15 seconds (or whatever latency is typical for that child), then *gradually* reduce the amount of time you wait for a smile. For example, reduce the time you'll wait from 15 seconds to only 13 seconds. Once the child begins to smile reliably within that time span, then reduce the latency period to 10 or 11 seconds. If the child is not successful at the new latency period, you may temporarily return to the longer interval for a few trials.

In all cases, make sure the caregiver's smile and voice—perhaps paired with hugs and other physical expressions of happiness—are consistent responses to the child's smile. Other preferred positive reinforcers, such as a sip of juice, briefly playing with a favorite toy, listening to a snatch of a favorite song, or affectionate touches, can follow the child's smile.

Lesson 7: Smiling to Initiate a Social Interaction

MATERIALS NEEDED

mirror

photographs

videotape

audiotapes

PURPOSE

Encouraging smiling as a response to interesting activities or to other smiles or voices is a challenging undertaking. Encouraging smiling as a greeting or to initiate a social activity is even more so. It probably will not be possible to directly instruct the child to smile in greeting, but it is possible to establish situations in which such smiling has the chance to occur. Then, once the "initiating" smile has been emitted, it is also possible to reinforce the child for smiling.

This activity is intended for the child who smiles reliably in response to stimuli but does not use smiling to initiate social interactions. When a child begins to smile on a regular basis in response to stimuli, it is time to consider encouraging the child to initiate social interactions by smiling. Remember, though, that the frequency of this "initiating" smile may decrease between the developmental ages of 6 and 12 months, when indiscriminate smiling ceases. Therefore, these activities may best be used by family members at home, unless your instructional situation allows you to interact with the child on a daily basis. Otherwise, even though the child knows you, you may be viewed as a "stranger" when it comes to smiling.

STRATEGIES

Each of these suggested strategies is enjoyable for both parent and child. Emphasize this. The more fun the caregiver and child have during the activities, the more likely they are to be successful in accomplishing the objectives.

For sighted babies, encourage mutual eye gaze with a parent or special caregiver. Ask the parent to gaze into the child's eyes and try to hold the gaze in an affectionate and relaxed manner. See who smiles first!

Use mirror play to encourage smiling. Place a large safety mirror perpendicular to an exercise mat. Place the child prone facing the mirror, supported on the elbows (or on a wedge). Have the parent or special caregiver lie in the same position next to the child and gaze into the mirror. See if the parent can make eye contact with the child as they both look at the mirror image. Who smiles first? A variation is to take turns smiling. The parent may initiate a smile. When the child smiles in return, have the parent make a funny face or respond in some way that the child will enjoy. If the child smiles again, the parent repeats the

response or gives another enjoyable response. The interaction has now subtly shifted so that the child's smile is initiating a parental response.

WHO'S THAT? Use photographs of special people to elicit smiles. Enlarge photos of Mom or Dad or siblings with smiling faces. Show each picture briefly, say "Who's that?" then wait for the child's response. Say "It's Daddy!" (or whoever). Frequently, this will elicit a smile. Then, the caregiver smiles in return or laughs or gives some other positive response. The child has elicited that response from the caregiver. An excellent variation of this game is to include a picture of the child in the stack. ("Who's that? It's Chris!")

"Peek-a-boo," "squeaky voice," "the elevator game," (all described in the What Do I Look For? handout) and "pat-a-cake" are all enjoyable (and effective) ways to initiate smiling. To accomplish the objective of having the child initiate an interaction with a smile, have the caregivers vary their responses to the child's smile. Take a game of "peek-a-boo" as an example: when the cloth is pulled away from the child's face and the child smiles, then have the caregiver stop playing (at least temporarily). The caregiver should respond with a smile, pick the child up for a big hug, or sing a song. In this way, the child's smile has initiated a social interaction. Once that interaction has played itself out, then the caregiver can return to the original game in order to elicit another smile and repeat the process.

Plan for generalization of this behavior. Make sure that parents, siblings, other interventionists, and all caregivers are aware of the learning that is occurring. They will need to be especially sensitive to the child's smiles for the next several weeks or months. When they see the child smile, especially in a situation in which the smile may be communicative or could initiate an interaction, they must attend to the child and really reinforce that smile. If smiling is reinforced only in situations or games that have been arranged for that purpose, then those will be the only situations in which that type of smile will occur.

Monitoring the success of these strategies will require an anecdotal approach. Once a week, arrange a free-play situation during which you will be especially alert for "initiating" smiles. Note the circumstances when they happen. Who were the participants? What happened just before the child smiled? Ask the parents to arrange similar situations at home.

Data Collection Strategies

Four data-collection strategies are recommended for evaluating progress in social smiling.

1. Use the What Do I Look For? checklist and the Smile Survey both as ongoing and as pre-/post-evaluation measures. Ask parents to complete both instruments as the first step in the program. Periodically throughout intervention, have the parents complete one or both instruments. This will allow the parents and the early intervention staff to notice progress during what may be a long instructional process. Small gains are typical, and several interim evaluations will allow parents to note the progress their child is making and also allow the early intervention staff to evaluate the effects of the intervention program and to make corrections or modifications in the program promptly.

   If increasing smiling is a goal in a center-based program, complete similar evaluations for the time that the child is at the center. These data can be used to compare smiling at home versus at the center and with the parents versus with the early intervention staff.

2. Tally the child's smile responses to several stimuli when evaluating strategies to increase the frequency of social smiles. An example of this procedure is described in lesson 4. Frequency data are useful in determining the effectiveness of any particular intervention and in making decisions about the child's intervention program.

3. Use a stopwatch to record response latencies to a variety of social stimuli. Lesson 5 presents an example of this procedure. These data are useful in evaluating the effects of intervention to decrease latency and as a guide to making decisions about the child's intervention program.

4. To document the improvement in social smiling, ask parents, early interventionists, or other people significant to the child to complete the following rating scale periodically throughout the intervention process.

Smile Rating Scale

Circle the number that best describes your answer to the following questions.

Is your child happy?
How often does your child smile?

1	2	3	4	5
I see no difference		Seems to smile a little more; seems a little happier		Smiles much more; much more fun to be with

Is your child fun to be with?
Is the time you spend with your child enjoyable?

1	2	3	4	5
I see no difference		A little more enjoyable		Much more enjoyable

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What Do I Look For?

INSTRUCTIONS

We all have a mental picture of how babies look when they smile. But we probably haven't thought too much about how babies learn to smile. One day they're not smiling, and the next day they are! The truth is that small steps are involved. Your baby will show you different smilelike behaviors at different ages on the way to learning how to give you that first "real" smile. Each of these behavioral steps is important, and each is a smile in its own right. So, before you begin teaching your baby to smile more often, you need to be able to identify each of these little steps that lead to a "true" social smile.

The purpose of this checklist is to help you see how your child smiles now. Also, you will learn the little "smile steps" that occur at different ages.

1. Get your materials together. You'll need a pencil, this checklist, and a soft cloth smaller than a pillowcase.
2. Arrange a quiet time when there are few distractions.
3. Make your baby comfortable (either sitting or lying down is fine) and sit with your face close to your child so that he or she can look directly at your face.
4. Play some fun games with your baby.

Remember: Your baby may respond more slowly than other children. As you play, give your baby plenty of time to respond. Do something that might make your child smile, then it's a good idea to wait about ten seconds before you do something else. As you wait, watch for any hint of a smile.

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Games You Might Try

PEEK-A-BOO Speak until you get your baby's attention. If your baby is lying down, hold two corners of the cloth and move it quickly up your child's body, starting at the toes. Drop the cloth over your child's face. (Just drape the cloth over a seated baby's head.) Say, "Where is _____ (child's name)?" After about five seconds, pull the cloth away (if your child hasn't already done so) and say "*There* you are. *Peek*-a-boo!" (Emphasize the words *there* and *peek*.) Wait ten seconds before repeating. Do this three times.

SQUEAKY VOICE Keep your face about an arm's length away from your baby's face. Get your baby's attention. Using a high-pitched (falsetto) voice, talk, babble, sing, or call the child's name. Continue any or all of these sounds for about five seconds. Then smile at your baby. Wait about ten seconds, then repeat the activity. Do this three times.

ELEVATOR GAME Seat your baby on your knees, facing you. Keeping a firm hold just below the armpits, raise your baby quickly into the air above your head. Jiggle your baby back and forth gently in the air, smiling and talking to him or her. Then lower your baby gently back to your knees. Wait at least ten seconds before repeating. Do the "elevator game" three times.

Remember: Children have been hurt when parents accidentally bumped them against shelves, lamps, and the like. Be careful to play this game only in an open area.

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Checklist

Place a check mark beside each smile behavior you see.

Look at the Face

_____ Twitches the lip or other muscle in the face (before a smile)
_____ Makes round, open mouth
_____ Sticks chin forward
_____ Turns up corners of mouth
_____ Wrinkles bridge of nose; nose seems shortened
_____ Makes dimpled, "peach-stone" chin
_____ Forms mouth into smile shape
_____ Shows gums
_____ Half-closes eyes (not just narrowed)
_____ Wrinkles or curves at outside of eyes
_____ Draws chin down to neck
_____ Shows teeth

Look at the Body

_____ Moves hands up and down over center of body, brings them to rest near mouth
_____ Draws knees to stomach
_____ Waves arms and kicks legs
_____ Leans toward the interesting object
_____ Tenses arms, waves hands, clenches and opens fists
_____ Pumps legs or bounces on legs

Listen

_____ Says "ah"
_____ Gargles; makes sounds in back of mouth such as "ha," "ah-gah," or "ah-goo"
_____ Squeals
_____ Makes a long "ah" sound
_____ Blows bubbles

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¿En qué Debo Fijarme?

INSTRUCCIONES Todos tenemos una imagen mental de como parecen los bebés cuando sonríen. Pero es probable que no pensamos mucho acerca de como aprenden a sonreír. ¡Un día no sonríen, pero al siguiente día lo hacen! La verdad es que esto se logra paso por paso. Su bebé hará ciertos gestos que parecen sonrisas, a diferentes edades, mientras está aprendiendo a brindarle su primera sonrisa. Cada paso es importante y hasta puede considerarse una sonrisa "verdadera." Así es que, antes de empezar a enseñar a su bebé como sonreír más, Ud. necesita reconocer cada paso que conduce a una "verdadera" sonrisa social.

El propósito de la siguiente lista es ayudarle a ver como se sonríe ahora su bebé. También aprenderá a identificar cada paso que ocurre en diferentes edades.

1. Junte sus materiales. Necesitará un lápiz, esta lista y un trapo más pequeño que una funda.
2. Disponga de un tiempo tranquilo cuando no haya muchas distracciones.
3. Acueste o siente a su bebé del modo más cómodo y siéntese Ud. cerca de él tan que él pueda mirar en su cara directamente.
4. Juege con su bebé.

Recordatorio: Es posible que su bebé responda más despacio que otros. Haga algo que pueda hacerle sonreír y luego es buena idea esperar como diez segundos antes de seguir con otra cosa. Mientras espere, fíjese si hay una insinuación que va a sonreirse.

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Juegos para probar

ASÓMATE Y ¡BU! Hable hasta conseguir la atención de su bebé. Si su bebé está acostado, agarre dos esquinas del trapo, muévalo rápidamente sobre el cuerpo de su niño, empezando por los pies. Deje caer el trapo sobre la cara del bebé. (Si está sentado, deje caer el trapo en la cabeza del niño.) Luego diga, ¿dónde está _____ (nombre del bebé)? Después de cinco segundos, jale el trapo (si el bebé no se lo ha quitado ya) y diga, "allí estás. *Asómate* y ¡bu!" (Enfatise las palabras *allí* y *asómate*). Espere diez segundos antes de repetir la actividad. Repítala tres veces.

VOZ CHIRRIDORA Mantenga la cara un brazo de la cara de su bebé. Capte la atención del bebé. Usando una voz alta (falseta) hable, charle, cante o repita el nombre de su bebé. Continue haciendo cualquiera de estos sonidos por cinco segundos. Entonces, sonríase con el niño. Espere como diez segundos y repita la actividad. Hagalo tres veces.

EL JUEGO DEL ASCENSOR Siente a su bebé sobre sus rodillas. Tomándolo firmamente debajo de los sobacos, levántelo en el aire. Menealo suavemente para arriba y para abajo en el aire, sonriéndose y hablándole. Luego bájelo suavemente a sus rodillas. Espere por lo menos diez segundos antes de volver a hacer la actividad. Repita el juego del ascensor tres veces.

Recordatorio: Los bebés han sido lastimados cuando los padres los han topado accidentalmente contra muebles, lámparas, etc. Tenga cuidado de jugar este juego en un espacio amplio y libre.

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Lista

Marque a un lado de cada insinuación que le paresca una sonrisa.

Fíjese en la cara

_____ Tiembla el labio u otro músculo de la cara (antes de sonreír)
_____ Abre la boca de una manera redonda
_____ Apunta la barba
_____ Mueve hacia arriba las orillas de la boca
_____ Arruga el caballete
_____ Arruga la barba como hueso de durazno
_____ Hace la boca en forma de sonrisa
_____ Enseña las encías
_____ Cierra medio (no simplemente estrecha) los ojos
_____ Hay arrugas o líneas junto al rabo de los ojos
_____ Baja la barba hacia el cuello
_____ Enseña los dientes

Fíjese al cuerpo

_____ Mueve las manos para arriba y para abajo sobre la mitad del cuerpo y las pone cerca de la boca
_____ Dobla las rodillas sobre el estómago
_____ Agita los brazos y da patadas
_____ Se acerca hacia un objeto interesante
_____ Estira los brazos, agita las manos, cierra y abre el puño
_____ Mueve o brinca las piernas

Escuche

_____ Dice "ah"
_____ Gorgotea, hace ruidos en la parte tracera de la boca como "ja," "ah-gah," or "ah-gu"
_____ Chilla
_____ Hace un sonido largo como *"ei"*
_____ Sopla burbujas

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Smile Survey

INSTRUCTIONS As they grow, babies learn to smile at things around them. Depending on the babies' ages, different sights, sounds, and things around them are likely to make them smile. The Smile Survey will help you identify the people and things in your child's life that cause smiles. At first, babies seem to smile at a great many things. As they develop, however, they become much choosier and may smile only at immediate family members. They may not smile at the "nice lady" who talks to them in the grocery store, or maybe not even at their grandparents. This behavior is normal. After a while, they will become more sociable and begin to smile again. So, if your child is in the "choosy" period, try not to let that influence how you answer the survey.

Some of these questions ask you to remember past events. To answer others, you may want to arrange a game so you can see whether your child smiles in that situation.

1. At what age did your child start to smile?

2. How has your child's smiling changed since the first smiles?

3. If you could change anything about how your child smiles (for example, when your child smiles or how long smiles last), what changes would you wish for?

4. Please describe the situations that are most likely to make your child smile.

5. Does your child smile more often at things or at people?

6. Does your child smile to get attention or ask you to play?

7. How do smiles make you feel?

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Below are listed some situations that bring about smiles in some children. Please circle the number that best describes how your child *usually* responds to each situation.

1 = This situation usually brings a smile.

2 = This situation usually causes little response.

3 = I haven't tried this activity or I am not sure of my child's typical response.

Mother's voice	1	2	3
Father's voice	1	2	3
Brother or sister's voice	1	2	3
High-pitched voice	1	2	3
Bird whistle	1	2	3
Baby rattle	1	2	3
Playing "peek-a-boo"	1	2	3
Moving a toy quickly into child's sight	1	2	3
Pop-up toy	1	2	3
Tickling (light touch)	1	2	3
Tickling (vigorous)	1	2	3
Songs	1	2	3
Massage	1	2	3
Making funny faces at child or wearing mask	1	2	3
Putting on sunglasses	1	2	3
Swinging child up and down	1	2	3
Swinging child back and forth	1	2	3

Please look back at the items you marked with a "3." Choose two or three of these situations that you'd like to try with your child. See if your child smiles.

_____

_____

If you'd like, name two other games you would like to try:

_____

_____

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Estudio Sobre la Sonrisa

INSTRUCCIONES Mientras crecen los bebés aprenden a sonreírse con cosas alrededores. Según sus edades diferentes vistas, sonidos y cosas alrededores los harán reir. El estudio sobre la sonrisa le ayudará a identificar a las personas y las cosas en la vida de su bebé que lo hacen sonreir. Al principio, parece que los bebés se sonríen con muchas cosas. Mientras se desarrollan, sin embargo, se vuelven más escogidos y puede ser que se sonrían solo con los miembros de la familia. Tal vez no se sonrían con la "señora amable" que les habla en la tienda o con sus abuelos. Este comportamiento es normal. Después de un tiempo, se volverán más amigables y empezarán a sonreír otra vez. Si su bebé se encuentra en la etapa quisquillosa no deje que eso influya como contesta las preguntas del examen.

Algunas de estas preguntas le piden que se acuerde de acontecimientos pasados. Para contestar otras preguntas, tal vez quiera jugar un juego para ver si su bebé se sonríe en esa situación.

1. ¿A cuál edad empezó a sonreírse su bèbé?
2. ¿Cómo ha cambiado la sonrisa de su bebé desde las primeras sonrisas?
3. ¿Si Ud. pudiera cambiar algo de la manera que se sonríe su bebé (por ejemplo, cuando se sonríe su bebé o cuanto dura su sonrisa), qué cambiaría?
4. Haga favor de describir las situaciones en que se sonríe su bebé.
5. ¿Se sonríe más su bebé con cosas o personas?
6. ¿Se sonríe su bebé para obtener su atención o porque quiere jugar con Ud.?
7. ¿Cómo le hacen sentir a Ud. las sonrisas?

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Algunas situaciones que producen sonrisas en algunos bebés son las siguientes: Haga favor de circundar el número que mejor describe como responde su bebé generalmente a cada situación.

1 = Esta situación generalmente produce sonrisas
2 = Esta situación generalmente produce muy pocas sonrisas
3 = No he probado esta actividad o no estoy segura de la reacción típica de mi bebé

La voz de mamá	1	2	3
La voz de papá	1	2	3
La voz de hermano o hermana	1	2	3
Voz chillante	1	2	3
Canto de pájaro	1	2	3
Sonajero	1	2	3
El juego "asómate y ¡bu!"	1	2	3
Enseñándole un jugete de repente	1	2	3
Jugete que salta y se esconde	1	2	3
Cosquillas (suavecitas)	1	2	3
Cosquillas (vigorosas)	1	2	3
Canciones	1	2	3
Masajes	1	2	3
Haciendo gestos o poniéndose una máscara	1	2	3
Poniéndose lentes obscuros	1	2	3
Columpiarse de arriba para abajo	1	2	3
Columpiarse de adelante para atrás	1	2	3

Haga favor de revisar las actividades que calificó con el número 3. Escoja dos o tres actividades que le gustarían probar con su bebé. A ver si se sonríe su bebé.

_____

_____

Si quiera, describa otros dos juegos que le gustaría experimentar.

_____

_____

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Play: Having Fun Together

Value

Having fun together is an important part of family life and is a delightful social reciprocity goal. All parents and young children should have the opportunity to play together in a way that is mutually enjoyable. The time caregivers and young children spend together in play strengthens the connection between parent and child and nurtures the emotional bonds that children need if they are to develop to their fullest potential. In addition, play has very specific value in the cognitive and social development of children. Play is the appropriate "work" of babies and young children because it is the basis for all the learning that takes place in a child's life.

If play is the expected activity for very young children and the people who care for them, why should a curriculum guide such as this one need to establish play as a goal area? For young children who have substantial disabilities and their families, there are barriers that may interfere with playing and playfulness. Caring for a child with disabilities may involve dealing with special procedures, therapies, and medical care; parents may find they have little time or energy left over to devote to "enjoyment." Infants and young children with disabilities may not respond as expected to caregivers' attempts at play, and family members may give up trying to play with these children as a result. Games that involve rough physical play may be avoided for fear of hurting a child who is medically fragile. Parents and other caregivers also may have difficulty in adapting play and toys to meet a child's specific needs. These barriers of lack of time and energy, uncertainty about choosing appropriate toys and activities, and frustration over the absence of typical responses to play may significantly limit opportunities for play. Thus, the family members and the child may need support in finding ways to play together. Play time for infants and young children with disabilities should be valued because it contributes to a more typical, satisfying family life and it provides opportunities for strengthening social relationships and for learning.

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Sample IFSP Outcomes: Play

Outcome #1

Caregivers will play with their child every day.
Caregivers and their child will learn new games and activities to enjoy together.

Outcome #2

Caregivers will identify barriers that interfere with play with their child and will find ways to overcome the identified obstacles.

Outcome #3

Parents will select, and make available, toys, including adapted toys, that will encourage their child to play.

Outcome #4

Children will learn to—

- grasp a rattle.
- shake a rattle.
- bat at a crib gym.
- roll a ball.
- press keys on a toy piano.
- solve a puzzle.
- stack rings.
- sort shapes.

Theoretical Perspective

Why do people play?

Play has very specific value in the development of all children. In the earliest stage of play development, infants and toddlers engage in exploratory, sensorimotor play (Bergen 1988). Initially the baby applies each new action learned to all objects encountered; for example, the child may mouth or try to shake everything. As time passes, the baby learns to use different actions depending on the attributes of the object—shaking a rattle and putting a pacifier in the mouth, for example.

During early sensorimotor play, young children especially enjoy objects (and people) that are responsive (noisy, springy, and so on). Through repetitive play with objects, they discover cause-and-effect relationships. Eventually children begin to show in their play that they understand the social context of objects: pages are turned on books, a comb is used on the hair, a car is pushed along the floor, and so on (Bergen 1988; Jaeger, Meidl, and Hupp 1989).

The value of this early play with both people and objects is that the child is exploring the relationships among self, other people, and objects. The child is developing a base of knowledge about the world that is necessary for language development and later symbolic play. Play, then, is a necessary cognitive activity that contributes to children's knowledge of the world and how they relate to it (Rosenblatt 1977).

Play provides necessary stimulation for young children. Ellis and Scholtz (1978) suggest that children play for the stimulation they receive, and the activity must contain elements of uncertainty or novelty to engage their interest. Thus, play becomes more complex as the child accumulates knowledge or experience with the toy or game (Ellis 1973). How much stimulation children want or need is an important issue when encouraging the play of young

children who are disabled. Familiar and repetitive activities can become tedious and boring because they provide limited new information; boring activities will eventually be ignored while the child seeks new alternatives (Ellis and Scholtz 1978). Even though a child with disabilities may have a limited repertoire of physical behaviors, it is necessary to encourage varied and increasingly complex play to maintain the child's engagement and interest.

A child with motor, cognitive, or sensory limitations may not be able to explore and initiate play as easily as nondisabled peers. As a consequence, the child may not receive as much appropriate, play-generated stimulation. A consequence of this lack of stimulation may be stereotypic behavior: rocking, humming, head banging, and hand clapping. Stereotypic behavior is believed to occur when a person is deprived of perceptual input (Ellis 1973). Stereotypic behaviors are the behaviors of last resort when a person is placed in a perceptually impoverished environment. Increased opportunities to play may decrease stereotypic behaviors in young children with disabilities, as it has been shown to do in normally developing children (Ellis and Scholtz 1978; Murphy, Carr, and Callias 1986).

In addition to the benefits of encouraging cognitive development and reducing stereotypic behavior, we should not forget the contribution play can make in adding pleasure to parent-child interactions. Some parents of young children who are disabled report that they do not spend much time in play because of the demands of therapy and specialized daily routines (Calhoun, Calhoun, and Rose 1989). Yet, when asked what is most pleasant and rewarding about being with their child, parents reported that playfulness is really treasured (Rose, Spooner, and Calhoun 1988). Play should be valued, then, for its contribution to a more pleasant, normalized family life (Wuerch and Voeltz 1982). Infants and young children play because it is pleasant and rewarding. Encouraging play and making meaningful play more accessible to children and families is an important social reciprocity goal.

Early Interventionists' Guide: Play

All children should have the opportunity to play daily. The goal of this section is to facilitate daily meaningful, pleasant play for infants and young children with disabilities and their families. Parents and professionals should collaborate in implementing the following four lessons:

1. Having Fun Together: Daily Play for Parents and Children
2. Toy Selection
3. Toy Adaptation
4. Learning to Play/Playing to Learn

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LESSON 1:
Having Fun Together: Daily Play for Parents and Children

MATERIALS NEEDED parent handouts describing games

Monthly Fun Calendar

PURPOSE This lesson is designed as a one- to three-hour workshop led by a facilitator, who could be an early interventionist or the parent of a special-needs child. Parents will learn about the importance of spending relaxed, mutually enjoyable play time with their children and will receive and share suggestions for play activities.

STRATEGIES Have parents write down on a sheet of paper all the games and enjoyable play activities they already do with their children.

1. Encourage parents to share these games and techniques with other parents.
2. Ask parents to identify at least five new games or activities they think they and their children might enjoy. Use the parent handouts to trigger ideas.
3. Lead parents in a discussion of some of the obstacles that may interfere with playing with their children and offer suggestions for overcoming these obstacles. Possible obstacles might include:
   - The child's unresponsiveness to parents' attempts to play.
   - Fear of injuring a child who is medically fragile.
   - Lack of free time to spend "just playing" because of demands of family, work, and therapeutic routines.
   - Difficulty in adapting play to a child's specific special needs (such as sensory or motor disabilities).
   - Parents' disappointment or frustration when the child doesn't participate or respond in the desired way.
4. Distribute a Monthly Fun Calendar to each family. Invite each family to fill in five new activities to try with their child during the month. Parents will record on the calendar the activity, how long play lasted, and whether it was mutually enjoyable.
5. If desired, the workshop can include a display of materials such as toys, activities, books, records, tapes, adapted toys, and switches, that are used or recommended by the early intervention program.
6. To close the workshop, individualize a play activity to meet the needs of a particular child.

LESSON 2: Toy Selection

MATERIALS NEEDED a variety of recommended toys for 0-2 programs

General Toys
- rattles
- wrist rattles
- safety mirror
- crib gym
- toys suspended from plastic hoop or between sawhorses
- textured rubber ball
- puzzles
- musical toys
- squeaky toys
- pull toys
- activity boards
- stacking rings
- nesting toys
- large pop beads
- roly-poly toys
- clay, modeling clay

Cause-and-Effect Toys
- balls with bells
- toy piano or keyboard
- jack-in-the-box
- pull toys with noisemakers
- switch-activated toys with lights or sound
- battery-operated toys with switch interrupters
- talking or wind-up toys

Interactive Toys
- balls
- small and large blocks
- books
- stuffed animals
- large empty boxes
- water and sand
- cars and trucks
- dolls

PURPOSE One way to make daily play appealing to caregivers and children is through appropriate toy selection. Demonstrating various types of toys and how to use them, and offering suggestions for particular children, can increase the frequency of enjoyable play.

STRATEGIES

In a parent workshop or small-group discussion, describe various functions of toys and how toys might be used:

1. *Beginning toys.* When first beginning to interact with toys, a child uses the same action on every toy. The child may shake, hit, or bat at all objects encountered. Appropriate toys for this level of play include:
   - rattles (including wrist rattles)
   - large roly-poly toys
   - crib gyms
2. *Cause-and-effect toys.* Certain characteristics seem to make some toys more appealing to children than others. Many children enjoy toys that make noise, such as keys or disks on a ring, push toys that make a noise, or musical toys. In addition, these toys help teach children that their actions can have an effect on their world. Besides the toys listed for this lesson, such everyday objects as a light switch or a garden hose can be used for cause-and-effect games.
3. *Interactive toys.* The most important toy any child can have access to on a regular basis is a responsive caregiver. Parents have the built-in ability to make themselves the most appealing "toy" in a child's world. Through regular reciprocal play, adults can make themselves familiar, predictable, and understandable to infants and young children. Adults are able to change and respond contingently to behaviors, which teaches the child how to influence and understand other people's behavior. At the same time, adults learn to read the child's messages more accurately. The following toys can help promote this kind of reciprocal play:
   - blocks
   - balls
   - dolls
   - stuffed animals

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LESSON 3: Toy Adaptation

MATERIALS NEEDED

examples of adapted toys

companies carrying adaptive equipment and toys:

Steven E. Kanor, Ph.D., Inc.
8 Main Street
Hastings-on-Hudson, NY 10706

Crestwood Company
Communication Aids for Children and Adults
P. O. Box 04606
Milwaukee, WI 53204-0606

Kapable Kids
P. O. Box 250
Bohonta, NY 11716

PURPOSE

This lesson offers parents a rationale for adapting toys for their children, gives examples of adapted toys, and makes specific suggestions for individual children.

Children with special needs may not be able to play with toys designed for normally developing children due to their perceptual and sensory limitations. They may show no interest in toys because the stimulation from simple toy interaction is not sufficiently reinforcing to them. By adapting toys designed for nondisabled children, we can make toys more accessible and interesting to play with.

STRATEGIES

Demonstrate strategies for adapting toys. Show adaptations using auditory (such as loud music), vibratory (such as a vibrating pillow), and visual stimuli (such as flashing lights).

1. Use information from sensory and motor evaluations for each child to develop hypotheses about what adaptations would be most helpful. Using the resources listed under Materials Needed, locate appropriate switches and extensions for individual children. Try out these adaptations and make recommendations to parents.
2. Discuss with parents the possibility of establishing a toy lending/toy sharing library while experimenting with the various types of toys (DeVincentis 1984).

Guidelines for establishing such a service are available from:

National Lekotek Center
Evanston Civic Center
2100 Ridge Ave.
Evanston, IL 60204
(708) 328-0001
Fax: (708) 328-5514

LESSON 4: Learning to Play/Playing to Learn

MATERIALS NEEDED — toys from list in lesson 2

RESOURCES — Davis, J., and M. Click. 1988. *Just for fun: Therapeutic play for physically disabled children.* Mesa, AZ: Ed Corp Publications.

Levine, S. P., N. Sharow, C. Gaudette., and S. Spector. 1983. *Recreation experiences for the severely impaired or non-ambulatory child.* Springfield, IL: Charles C. Thomas.

Miller, K. 1984. *Things to do with toddlers and twos.* 4th ed. Marshfield, MA: Telshare Publishing.

PURPOSE — Children with severe disabilities may need some instruction, physical prompts, and support in learning to play with toys and other people. The lessons that follow can be done in a center-based program or during home visits. They are designed to give the child the skills needed to begin to have fun with toys and people. Adults should be alert to their language and eye contact throughout these activities.

STRATEGIES — This section lists target behaviors to achieve three goals relating to play skills.

GOAL — **The child will interact with objects and playthings.**

TARGET BEHAVIOR 1 — When a rattle or toy ring is placed in the hand, the child will maintain grasp for 30 seconds.

PROCEDURE — With the child seated comfortably, place a rattle or toy key ring in the hand, helping the child to get a good grasp. Help the child hold and shake the toy. Then let go and say, "Hold on."

CRITERION — The child will maintain grasp on the toy for 30 seconds or more during eight out of ten play periods.

TARGET BEHAVIOR 2 — When presented with a rattle or ring, the child will maintain grasp and shake the toy to produce noise intermittently for 15 seconds.

PROCEDURE — With the child positioned comfortably, offer a rattle or ring toy, helping the child get a good grasp, then let go and say, "Shake it."

CRITERION — The child will shake the toy intermittently for 15 seconds or more on eight out of ten play periods.

TARGET BEHAVIOR 3 When placed beneath a crib gym, the child will bat at the toys independently.

PROCEDURE Place the child comfortably face-up beneath toys hanging at a reachable distance from a crib gym, bar, or plastic hoop. Guide the child's hands to the toys and bat at them to show how to explore the toys. Make sure some of the toys produce sound and others are reflective. Say, "Bat the toys" while you help the child do so. Then let the child attempt to play independently.

CRITERION The child will bat at the hanging toys intermittently without help for three minutes or more during ten out of ten play periods.

GOAL The child will interact with objects and playthings in a functional manner.

TARGET BEHAVIOR 1 When presented with a ball, the child will make an attempt to roll it or throw it.

PROCEDURE Seat the child comfortably on the floor. If necessary, sit behind the child, providing support from the rear. Have another adult seated on the floor four to six feet away from you. Using a sponge ball or other easy-to-grasp ball, help the child to throw or roll the ball to the other adult. Have the adult roll or throw the ball back. Say, "Throw the ball" or, "Catch the ball" when appropriate. Once the child begins to enjoy this game, fade out your help and allow him or her to try rolling or throwing and catching independently.

CRITERION When presented with a ball, the child will make an attempt to throw it or roll it during eight out of ten play periods.

TARGET BEHAVIOR 2 When presented with a toy car or truck, the child will roll the toy along a flat surface.

PROCEDURE While the child is seated comfortably on the floor or in any appropriate position (such as standing or seated at a table), present a toy car or vehicle small enough to hold in one hand. Demonstrate how the car moves back and forth. Help the child to move the car, then take your hand away and say, "You make the car go."

CRITERION When presented with a toy vehicle, the child will move the car with a hand without help during four out of five play periods.

TARGET BEHAVIOR 3 When presented with a toy piano or keyboard, the child will use fingers to press the keys with the intent to make music.

PROCEDURE Place the child standing or sitting comfortably at a table. Present a small toy piano or electronic keyboard. Place the child's fingers gently on the keys and say, "Make music on the keyboard." Help the child press the keys. Then withdraw your help and say again, "Make music on the keyboard."

CRITERION When presented with a toy piano or keyboard, the child will press the keys and produce sounds during four of five play periods.

GOAL The child will interact with toys or objects that require a combination of actions or activities.

TARGET BEHAVIOR 1 When presented with a simple puzzle, the child will pick up the pieces and place them in the proper positions.

PROCEDURE Start with the simplest wooden puzzle with handles on the pieces. Guide the child's hand to pick up a puzzle piece, then place it in the form. Describe what the child is doing: "Pick up the circle; now put it in the hole." Next, present the puzzle piece and form and say, "Pick up the circle and put it in the hole." This time, allow the child to place the piece independently. As the child becomes more proficient, offer puzzles with different shapes.

CRITERION When presented with a puzzle, the child will place the piece(s) in the correct form(s) during four out of five play periods.

TARGET BEHAVIOR 2 When presented with a stacking ring toy, the child will place the rings on the post in the correct order.

PROCEDURE With the child seated on the floor in front of you, take the stacking toy apart and demonstrate how to put it together. Tell the child what you are doing throughout the procedure. Then offer the toy to the child and say, "You do it." Provide guidance at first by handing the child the correct rings and helping to place them. If the child tries to place a ring out of order point out the correct ring, saying, "No, this one goes next." (Be sure also to allow independent play time with this toy, so the child can discover the order independently.)

CRITERION The child will stack the rings in the correct order during three out of five play periods.

TARGET BEHAVIOR 3 When presented with a simple, three-shape sorter, the child will drop the shapes through the appropriate openings.

PROCEDURE With the child seated comfortably on the floor or propped on your lap or in front of you, take the shapes out of the sorter and separate them by shape. Tell the child what you are doing and describe each shape; help the child to feel the different shapes. Then help the child to pick up a shape while describing what you are doing together: "Pick up a circle; now put it in the circle hole." Then help the child pick up another circle, but allow him or her to put it in the hole independently. Initially, present one shape at a time. Do not mix the three shapes until the child has demonstrated the ability to place all the circles, squares, and triangles separately. Only then mix the shapes together and have the child sort them independently.

CRITERION The child will place shapes in the proper slots of a shape sorter with 80% accuracy during four out of five play periods.

Data Collection Strategies

The following data collection sheets are designed to help parents record and evaluate new play activities they have tried with their children. It is suggested that this self-recording be done for one month, then repeated at six-month intervals. You or the parents should collect data daily on the specific play goals listed on the preceding pages, to monitor progress toward the established criteria.

Parent Activity Summary Sheet

Activity	Date and time spent	Did we enjoy the activity? Why?	Should we try it again?

Time to ask for a new summary sheet.

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Daily Data Collection

Name of activity:
Date and time spent:
Participants:
What happened:
Was the activity valuable?

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Monthly Fun Calendar

Record daily what games or activities you played, how long you played, and whether or not you and your child enjoyed the activity.

Five new activities we will try this month:

1. _____ 4. _____

2. _____ 5. _____

3. _____

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

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Wagon Ride

TIME REQUIRED 10 to 15 minutes

PARTICIPANTS parent and child

MATERIALS NEEDED child's wagon

foam pads or blanket rolls

ACTIVITY Use foam pads or blankets to position your child comfortably and securely in a wagon. Be sure your child can see where you are going. Pull the wagon around the house or backyard while you describe where you are and what you see. Vary your speed, use different kinds of motions, go over bumps, start and stop. Meanwhile, look for signs that your child wishes to do any of these things again. You can play this game using a small inflatable boat in a pool during the summer months.

VALUE Sight (visual) and position (kinesthetic) stimulation; awareness of movement and changes in movement.

(Adapted from Levine et al. 1983)

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Paseo de Carreta

TIEMPO REQUERIDO 10 a 15 minutos

PARTICIPANTES padre y bebé

MATERIALES NECESARIOS carreta infantil
cojines de caucho esponjoso o mantas

ACTIVIDAD Use cojines o mantas para poner a su bebé cómoda- y seguramente en la carreta. Asegúrese que su bebé pueda ver a donde van. Jale la carreta alrededor de la casa o patio de atrás de la casa mientras Ud. describe donde están y lo que ven. Varíe la velocidad, use movimientos diferentes, pasen sobre asperezas, empieze y deténgase. Mientras fíjese si le gustaría a su bebé hacer estas cosas otra vez. Puede jugar este juego en el verano, usando un tubo inflado en una piscina.

VALOR Estímulo de la vista (visual) y de la posición (cinestésico); conciencia de movimiento y de cambios en el movimiento.

(Adaptado de Levine y otros 1983)

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Dance and Move with Me

TIME REQUIRED 5 to 15 minutes

PARTICIPANTS parent and child

MATERIALS NEEDED music (if desired)

ACTIVITY Allow the child to experience different kinds of movement. Hold your child securely while you run in place, skip, hop, glide, walk fast and slowly, rock back and forth, turn in a circle, go up and down stairs, and other movements. Dancing to Mom or Dad's favorite music is especially fun. Just turn on the music and let the movement flow.

Play a game of "stop and go." While running or walking say "go-go-go," then stop suddenly as you say "stop." Stop long enough for your child to be aware of the change.

Be sure to give plenty of support and slow down if your child becomes upset.

VALUE Sight (visual) and position (kinesthetic) stimulation; awareness of movement and changes in movement.

(Adapted from Levine et al. 1983)

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Baila y Paséate Conmigo

TIEMPO REQUERIDO 5 a 15 minutos

PARTICIPANTES padre y bebé

MATERIALES NECESARIOS música (si desea)

ACTIVIDAD Permita que su bebé experimente diferentes movimientos. Agarre a su niño cuidadosamente mientras Ud. corre-en-un-sitio, salta, brinca, se desliza suavemente, camina aprisa y despacio, se mece para atrás y adelante, camina en círculos, sube y baja escalones y hace otros movimientos. Bailar al compás de la música favorita de mamá y papá es muy divertido. Ponga la música y muévase.

Juege el juego de "alto y adelante." Mientras corra o camina, diga, "adelante, adelante"; luego, párese de repente y diga, "alto." Quédese parado el tiempo necesario para que su bebé se de cuente del cambio.

No deje de animar a su bebé, pero vaya más despacio si a su bebé se molesta.

VALOR Estímulo de la vista y de la posición (cinestésico); conciencia de movimiento y cambios de movimiento.

(Adaptado de Levine y otros 1983)

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Touch and Talk

TIME REQUIRED anytime, as long as you like

PARTICIPANTS parent and child

MATERIALS NEEDED none

ACTIVITY As you go through your daily routines, talk with your child about everything you do and see. At bath time touch and name parts of your child's body as you wash them: "I'm washing Dana's foot!"

Touch each piece of clothing and talk about it as you dress your child: "This is Jamie's sweater, a red, red, sweater! Whose sweater is it? It's Jamie's red sweater!" While you are cooking, doing laundry, or any household chore, describe what you are doing and show your child. Your child may not understand your words at first but will enjoy hearing your voice and being close to you.

VALUE Learning and listening to language (auditory and verbal stimulation).

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Toca y Habla

TIEMPO REQUERIDO cualquier tiempo o lo que se requiera

PARTICIPANTES padre y bebé

MATERIALES NECESARIOS ningunos

ACTIVIDAD Mientras hace sus actividades cotidianas, platique con su bebé acerca de todo lo que Ud. está haciendo y de lo que ve. Durante el baño, toque y nombre las partes del cuerpo del bebé. Al lavarlas diga, "Estoy lavando el pie de Sara."

Toque cada pieza de ropa y descríbala al vestir a su bebé. "Este es el suéter de Jaimito, un suéter rojo, rojo. ¿De quién es este suéter? ¡Es el suéter rojo de Jaimito!" Mientras se prepara la comida, lava la ropa o hace cualquier quehacer, describa lo que está haciendo y muestréselo a su bebé. Su bebé no entenderá sus palabras, al principio, pero le gustará escuchar a su voz y estar cerca de Ud.

VALOR Aprendiendo y oyendo el lenguaje.

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Reading Aloud and Listening

TIME REQUIRED 10 to 15 minutes

PARTICIPANTS parent and child

MATERIALS NEEDED a book of nursery rhymes or any children's story that suits you (Check your local library or borrow books from school or friends.)

a comfortable place to sit

ACTIVITY Seat yourself comfortably with your child seated either in your lap or in a comfortable chair beside you. Read your book aloud. Use your voice to make the story sound interesting and exciting. Change your voice to suit the story characters. Read the same stories over and over again and look for signs from your child of enjoyment or anticipation of certain silly sounds. Once you see anticipation of certain stories or rhymes, be sure to repeat them every time you read, as well as reading new poems or stories.

VALUE Learning and listening to language (auditory and verbal stimulation); close, loving interaction with a parent.

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Leyendo y Escuchando a Cuentos

TIEMPO REQUERIDO 10 a 15 minutos

PARTICIPANTES padre y bebé

MATERIALES NECESARIOS Un libro de rimas infantiles o cualquier cuento infantil que le guste (consígalos de la biblioteca, de la escuela o de amigos)

Un sitio cómodo para sentarse

ACTIVIDAD Siéntese cómodamente con su bebé en el regazo o en una silla cómoda junte de Ud. Lea un libro en voz alta. Use la voz para contar el cuento en una manera interesante y divertida. Cambie el tono de su voz según los personajes del cuento. Lea los mismos cuentos una y otra vez y fíjese si su bebé da muestras de interés o anticipa escuchar algunos sonidos. Cuando Ud. note cierta participación a que Ud. lea algunos cuentos y rimas, repítalas y también léale poemas o cuentos nuevos.

VALOR Aprendiendo y oyendo el lenguaje; interacción cercana y cariñosa.

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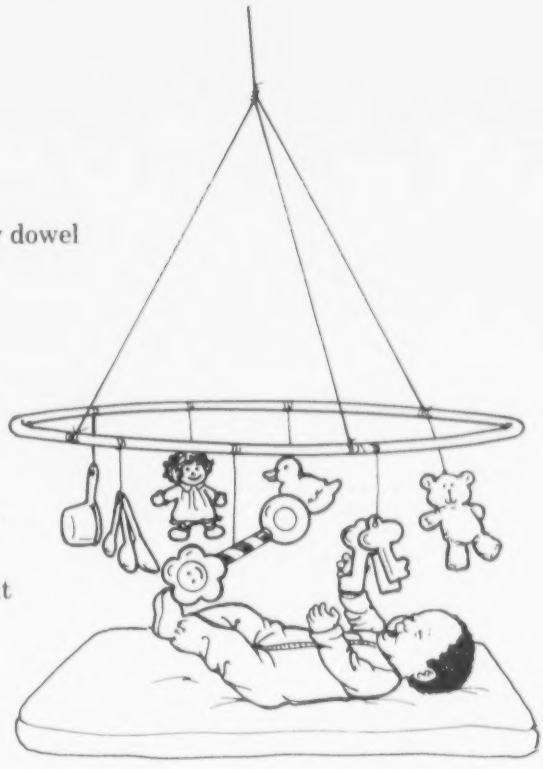
Plastic Hoop Infant Gym



TIME REQUIRED unlimited

PARTICIPANTS child (independent play) or child and parent

MATERIALS NEEDED large plastic hoop or sturdy dowel

sturdy, tightly wound string or cord

small infant toys such as rattles or keys

small, soft material dolls

household items such as plastic measuring spoons and cups

any objects that have bright colors, make different sounds, or are varied shapes and sizes

hook or bracket for attaching hoop to ceiling

ACTIVITY Tie toys and other items securely onto the hoop with string so they dangle 6 to 12 inches from the hoop. Then securely attach at least three long lengths of string at equal distances around the hoop, tie them together, and suspend the hoop from the ceiling. The hoop should hang just far enough above the floor that the child can play with the items while lying on a mat or blanket underneath the hoop. Be sure to hang the hoop where you can supervise play, and do not leave the child unattended. You can use a dowel in place of the hoop.

VALUE Sight (visual) and touch (tactile) stimulation; listening to sounds (auditory stimulation); independent play.

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Aro de Plástico para Gimnasia Infantil

TIEMPO REQUERIDO indefinido

PARTICIPANTES bebé (juego independiente) o bebé y padre

MATERIALES NECESARIOS
- aro grande de plástico o clavija fuerte
- hilo o cuerda muy bien tejida
- juguetes infantiles como sonajeras o llaves
- muñecas pequeñas de material suave
- piezas caseras como cucharas y tazas de plástico
- objetos de colores brillantes, que hacen ruidos diferentes o de formas y tamaños variados
- gancho en el techo que sostenga al aro

ACTIVIDAD Amarre los juguetes y otras piezas para que cuelgen 6 o 12 pulgadas del aro. Luego amarre tres cuerdas a distancias iguales una de la otra alrededor del aro, júntelas para colgar el aro del techo. El aro debe colgar hasta cierto punto para que el bebé pueda alcanzar las piezas y jugar con ellas mientras está acostado en un colchón o cobija abajo del aro. Cuelgue el aro donde Ud. pueda supervisar el juego y no deje solo al bebé. Puede usar una clavija en vez de un aro.

VALOR Estímulo de la vista (visual), del toque (táctil) y del oído (auditivo); juego independiente.

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Listening Place

TIME REQUIRED 10 to 30 minutes

PARTICIPANTS child

MATERIALS NEEDED small, inexpensive cassette player

cassette tapes (suggest classical or new-age music, or preschool tapes)

comfortable, adjustable headphones

ACTIVITY Listen to the tape with your child, possibly as part of the "Dance and Move with Me" activity, so that your child is familiar with the music. Seat your child comfortably and safely where you can supervise this activity. Place headphones over the child's ears and turn on the music, **being careful not to turn the volume too loud.** Look for preferences in music and recognition of tapes that have been played over and over. You may have to help your child gradually get used to the headphones.

VARIATION If you have a stereo with free-standing speakers, have your child touch the speakers while the music plays to feel the vibrations.

VALUE listening to sounds (auditory stimulation);
independent activity.

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Un Lugar para Escuchar

TIEMPO REQUERIDO 10 a 30 minutos

PARTICIPANTES bebé

MATERIALES NECESARIOS
casetera pequeña y barata
cintas (música clásica, "New Age" o pre-escolar)
audífonos cómodos

ACTIVIDAD Escuche a la cinta con su bebé, posiblemente como parte de la actividad "Baila y Paséate Conmigo," para que su bebé se familiarse con la música. Siente a su bebé cómoda, y seguramente en un lugar donde Ud. pueda supervisar su actividad. Ponga los audífonos en los oídos del bebé y ponga la música, **teniendo mucho cuidado de no poner el volumen muy alto.** Fíjese qué música prefiere y cuáles cintas, de las que se han tocado muchas veces, reconoce. Tal vez tenga que ayudar a su bebé a acostumbrarse gradualmente a los audífonos.

VARIACION Si tiene un estereo con altavoces independientes haga que su bebé los toque para que sienta las vibraciones de la música.

VALOR Estímulo del oído (auditivo); actividad independiente.

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Rhythm Band

TIME REQUIRED 10 to 15 minutes

PARTICIPANTS parent and child

MATERIALS NEEDED assortment of musical instruments—bells, tambourine, maracas, drumsticks

record player, tape player, or radio

ACTIVITY You can make instruments by tying bells on a piece of yarn or filling an oatmeal box or coffee can with dried beans. Play any music that you and your child enjoy. Help your child hold on to an instrument and play it along with the beat of the music.

VALUE Listening to sounds (auditory stimulation); touch (tactile) stimulation.

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Banda Rítmica

TIEMPO REQUERIDO: 10 a 15 minutos

PARTICIPANTES: padre y bebé

MATERIALES NECESARIOS: un surtido de materiales musicales—campanas, panderetas, maracas, palos de tambor

tocadiscos, casetera o radio

ACTIVIDAD: Puede hacer instrumentos en casa amarrando campanitas a una hilaza o llenando una caja de avena o una lata de café con frijoles. Toque cualquier música que les guste a Ud. y a su bebé. Ayude a su bebé a agarrar un instrumento y tocarlo al compás de la música.

VALOR: Estímulo del oído (auditivo) y del toque (táctil).

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Pudding Painting

TIME REQUIRED 15 to 20 minutes

PARTICIPANTS parent and child

MATERIALS NEEDED instant, canned, or precooked pudding

waxed paper or a clean tray

smock or old clothes

ACTIVITY Position your child in an upright, comfortable position with easy access to a work surface (table, tray). Spread a small amount of pudding on a piece of waxed paper. Help the child place a hand in the pudding and make pictures and patterns by swirling the pudding around. Guide the child's hand up to his or her mouth to taste the pudding. Be prepared for you and your child to make a real mess! Talk about the texture and taste of the pudding.

VALUE Touch (tactile) and taste (gustatory) stimulation; learning self-feeding skills.

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Pintado con Budín

TIEMPO REQUERIDO 15 a 20 minutos

PARTICIPANTES padre y bebé

MATERIALES NECESARIOS budín instantáneo, enlatado o precocido

papel encerado o una charola limpia

una bata o ropa vieja

ACTIVIDAD Siente a su bebé en una posición cómoda ante una mesa o charola. Embarre un poco de budín en un pedazo de papel encerado. Póngale la manita en el budín y ayúdele a hacer figuras con el budín. Póngale la manita en la boca para probar el budín. Esté lista para que Ud. y su bebé haga un mugrero. Hable acerca de la textura y el sabor del budín.

VALOR Estímulo del toque (táctil) y del sabor (gustatorio); aprender destrezas para comer independiente.

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Warm Laundry

TIME REQUIRED 10 to 15 minutes

PARTICIPANTS parent and child

MATERIALS NEEDED sturdy laundry basket

warm clothes just out of the dryer

ACTIVITY Fill the laundry basket or a sturdy cardboard box with clean, warm laundry to be folded. Be sure the laundry is not too hot; metal parts on jeans and other garments can burn tender, young skin. Place the child in the warm laundry and describe how it feels. Let your child lie comfortably in the warm laundry while you fold it. Describe each piece you take out as you fold it.

VALUE Learning language; touch (tactile) stimulation.

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Ropa Caliente

TIEMPO REQUERIDO 10 a 15 minutos

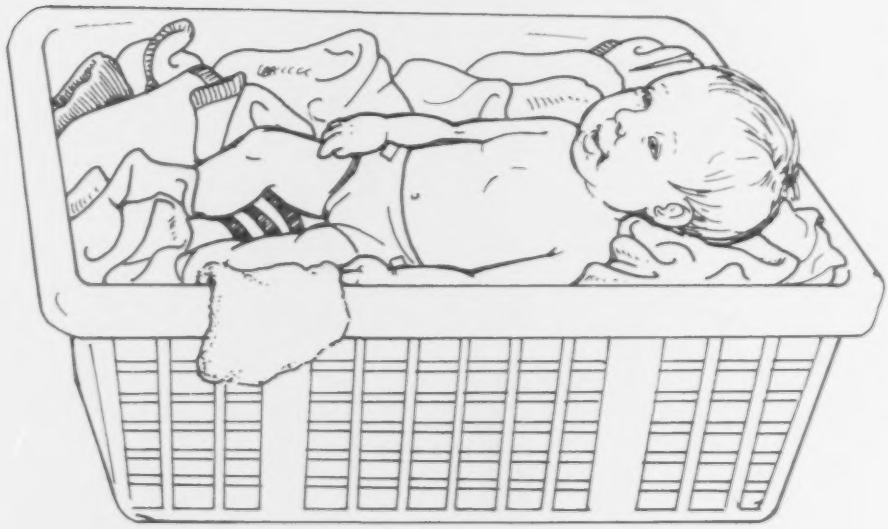
PARTICIPANTES padre y bebé

MATERIALES NECESARIOS Canasta fuerte para la ropa

ropa calientita recién salida de la secadora

ACTIVIDAD Llene la canasta o una caja con ropa limpia y calientita, lista para doblar. Fíjese que la ropa no esté demasiado caliente; las partes de metal de pantalones y otra ropa pueden quemar la piel tierna del bebé. Siente al bebé sobre la ropa calientita y explíquele lo que está sintiendo. Deje que su bebé se acueste cómodamente sobre la ropa mientras Ud. la dobla. Describa cada pieza mientras la dobla.

VALOR Aprendiendo el lenguaje; estímulo del toque (táctil).



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Smellies

TIME REQUIRED 5 to 10 minutes

PARTICIPANTS parent and child

MATERIALS NEEDED anything that has a distinct smell:

- perfume
- soap
- spices
- flowers
- foods (include some with strong smells)
- leaves such as pine needles or mint

ACTIVITY Gather all the smelly materials together. Position the child comfortably either in a chair or your arms. Hold the items up to your child's nose one at a time. Talk about the smell: "Mmm, that smells so good" or "Ooh! P. U.! That stinks!"

VARIATION Walk around the house and find things to smell. For example, open the refrigerator, find the garlic, and smell it together. Explain that garlic is found in the refrigerator. Then go to the laundry room and smell the dryer sheets, and so on.

VALUE Smell (olfactory) stimulation; learning to connect locations in the home with certain odors.

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Olores

TIEMPO REQUERIDO 5 a 10 minutos

PARTICIPANTES padre y bebé

MATERIALES NECESARIOS cualquier cosa que tenga un olor distintivo:

- perfume
- jabón
- especias
- flores
- comidas (incluya algunas de olor fuerte)
- pinochas o hojas de menta (yerbabuena)

ACTIVIDAD Junte todos los materiales olorosos. Siente a su bebé cómodamente en una silla o en su regazo. Acerque cada cosa a la nariz de su bebé, una por una. Hable acerca del olor: "Mmm, ¡qué bien huele!" o "¡Cómo apesta!"

VARIACION Camine alrededor de su casa para encontrar cosas que oler. Por ejemplo, abra la puerta del refrigerador, saque un clavo de ajo y huelánlo. Explíquele al bebé que un clavo de ajo se encuentra en el refrigerador. Luego, pase al cuarto donde se lava la ropa y huelan las sábanas recién salidas de la secadora, etc.

VALOR Estímulo olfativo; aprender a identificar a ciertos lugares de la casa con ciertos olores.

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Blanket Roll

TIME REQUIRED 5 to 10 minutes

PARTICIPANTS parent and child

MATERIALS NEEDED a small blanket such as a receiving blanket

ACTIVITY Roll your child up loosely in the blanket, leaving the head uncovered. Grab the edge of the blanket and tug **gently** to make the child roll across the floor.

VARIATIONS Roll the child down a gentle, leaf-covered slope outdoors in the fall.

Roll the child down a vinyl-covered wedge.

Raise your child's arm and knee on one side. Guide your child's body through a roll to teach independent rolling.

Roll your child uphill as well as downhill.

VALUE Sight (visual), touch (tactile), and position (kinesthetic) stimulation.

(Adapted from Levine et al. 1983)

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Rodando

TIEMPO REQUERIDO 5 a 10 minutos

PARTICIPANTES padre y bebé

MATERIALES NECESARIOS una cobija pequeña (cobijita)

ACTIVIDAD Envuelva al bebé en la cobijita, con la cabeza de fuera. Agarre una orilla de la cobija y jálela **suavemente** para que el bebé se ruede al otro lado del piso.

VARIACION En el otoño ponga a su bebé en un declive sobre las hojas para que pueda rodar

Ponga al bebé sobre una cuña forrada con material de vinilo

Levántele el brazito y la rodilla de un lado. Envuelto como un rollo, guíe al cuerpecito del bebé para enseñarle a rodar independientemente

Ruede al bebé cuesta arriba tanto como cuesta abajo.

VALOR Estímulo del visto (visual), del toque (táctil) y de la posición (cinestético).

(Adaptado de Levine y otros 1983)

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Bubble Blowing

TIME REQUIRED 10 to 15 minutes

PARTICIPANTS parent and child

MATERIALS NEEDED jar of bubbles and wand
blanket or mat to sit on

ACTIVITY Go outdoors on a breezy day with your child. Place your child comfortably either lying face up or on one side, or sitting in a chair. Blow bubbles and help your child bat at the bubbles with both hands. Will your child imitate you blowing bubbles?

VALUE Sight (visual) stimulation;
imitation; eye-hand coordination.

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Soplando Burbujas

TIEMPO REQUERIDO	10 a 15 minutos
PARTICIPANTES	padre y bebé
MATERIALES NECESARIOS	frasco de burbujas con varita cobija o estera para sentarse
ACTIVIDAD	Salga para afuera con su bebé en un día ventoso. Acueste al bebé cómodamente boca arriba o de un lado o siéntelo en una silla. Sople las burbujas y ayude a que su bebé rompa las burbujas con las dos manos. ¿Imitará el niño cómo Ud. sopla burbujas?
VALOR	Estímulo del visto (visual); imitación; coordinación entre ojo y mano.

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Texture Tub

TIME REQUIRED 15 minutes

PARTICIPANTS parent and child

MATERIALS NEEDED a plastic dishpan

textured materials such as:

- marbles
- rice
- oatmeal
- sand
- cornstarch and water
- cooked, cold spaghetti
- beans
- elbow macaroni

ACTIVITY Put some of the textured material into the dishpan. Place your child in a comfortable position (lying on a wedge, sidelying, or sitting at a table or on the floor) so that hands, arms, and feet are free. Place the child's hands or feet into the dishpan and encourage exploration of the material, helping your child to grasp some of the material and wiggle and swish through it.

Remember: supervise this activity closely, especially if your child might try to eat any of the materials.

VARIATION Try using two pans and fill them with contrasting materials (something warm and something cold, something sticky and something dry, something soft and something hard, and so on.

VALUE Touch (tactile) stimulation of body parts; comparing textures and qualities; reaching and grasping.

(Adapted from Levine et al. 1983)

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Paila con Textura

TIEMPO REQUERIDO 15 minutos

PARTICIPANTES padre y bebé

MATERIALES NECESARIOS paila de plástico para lavar platos

objetos con textura como:

- canicas
- arroz
- avena
- arena
- maizena y agua
- espaguetis cocidos
- frijoles
- macarrones

ACTIVIDAD Ponga objetos en la paila. Ponga a su bebé en una posición cómoda (acostado sobre una cuña lisa, de lado o sentado ante una mesa o en el piso) para que las manos, los brazos y pies estén libres. Meta las manos o los pies del bebé dentro de la paila y anímelo a examinar los objetos, ayudándolo a agarrar unos objectos, culebreando y zumbando.

VARIACION Use dos pailas con materiales contrastantes (cosas calientes y cosas frías, cosas pegajosas y cosas secas, cosas suaves y cosas duras, etc.) **Recordatorio: Supervise esta actividad de cerca, especialmente si su bebé quiere comer las cosas.**

VALOR Estímulo táctil de partes del cuerpo; comparación de texturas y calidades; alcanzar y agarrar.

(Adaptado de Levine y otros 1983)

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Make Up Your Own Activity

Use this sheet to customize activities for your child or to share activities with other parents.

TIME REQUIRED _____

PARTICIPANTS _____

_____

MATERIALS NEEDED _____

_____

_____

_____

_____

_____

ACTIVITY _____

_____

_____

_____

_____

_____

VALUE _____

_____

_____

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Produzca su Propia Actividad

Use esta hoja para producir o adaptar actividades para su bebé o para compartir actividades con otros padres.

TIEMPO REQUERIDO _____

PARTICIPANTES _____

_____

MATERIALES NECESARIOS _____

_____

_____

_____

_____

_____

ACTIVIDAD _____

_____

_____

_____

_____

_____

VALOR _____

_____

_____

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Imitation

Value

Studies have shown that parents begin imitating their baby's behavior and facial expressions within the first three days of life. These early experiences of imitation may provide the infant with an opportunity to regulate the relationship between parents and child. Imitating older babies and children may increase their awareness that they can control their environments.

Imitation appears to have an important function for the parent as well: Imitating the infant allows the parent to maintain interaction with the baby. Imitation also encourages the parent to vocalize to the baby. (For example, "Are you looking at Mommy?") The relationship between imitative acts by parents and vocalization to the infant is strong. Encouraging parents and infants to imitate each other can support many important early-intervention goals—better communication, engagement, and increased turn-taking between parents and infants—which is the basis of social reciprocity. Besides, imitation can be great fun!

Sample IFSP Outcomes: Imitation

Outcome #1

Parents will develop the skills necessary to recognize turns during turn-taking activities.

Outcome #2

Parents will engage in reciprocal turn-taking by initiating a social interaction and waiting for their child to respond.

Outcome #3

Parents will prompt their child's turn during a social interaction, using the least intrusive prompt that will be effective.

Outcome #4

Parents will imitate their child's behavior as closely as possible.

Outcome #5

Parents will learn to interpret their child's interactive responses and respond to behaviors their child uses to initiate an activity.

Outcome #6

The child will take a turn during a socially reciprocal interaction.

Outcome #7

The child will allow the parent to take a turn during a socially reciprocal interaction.

Outcome #8

The child will imitate verbalizations, actions, or physical gestures at appropriate developmental levels.

Theoretical Perspective

Researchers in many disciplines—including anthropologists, sociologists, and psychologists from a variety of theoretical orientations—have been interested in imitation for a number of years. Psychologists and educators representing cognitive-developmental, behavioral, or social learning perspectives have focused their attention on imitation in children.

Early investigators attributed imitation to instinct because it occurs in all cultures; then, during the 1930s, the rise of developmental and behavioral explanations of human behavior replaced the instinctual theory. Cognitive-developmental explanations, derived from Piaget (1962), have received little empirical support; surprisingly, there is virtually no clear evidence of developmental changes in imitation (Hartup and Coates 1970; Yando, Seitz, and Zigler 1978). Behavioral theories, including social learning theories derived from Bandura (1969), have led researchers to demonstrate that imitation can be learned (Baer and Sherman 1964; Baer, Peterson, and Sherman 1967; Gerwitz and Stingle 1968).

Regardless of the ultimate validity of the cognitive-developmental and behavioral approaches, a distinction must be made between learning *by imitation* and learning *to imitate*. Learning by imitation assumes that the child knows how to imitate a model's responses and can use imitative skills to acquire new responses (Parton 1976). But teaching a child to imitate requires an interventionist to facilitate the skills that allow the child to match a model's behaviors (Bailey and Wolery 1984). Turn-taking, to be discussed later, is one of the most effective strategies for teaching a child to imitate.

The ability to imitate is a critical component of reciprocal parent-infant interactions, because imitation is a skill that helps establish early contingency experiences or response-contingent behaviors—that is, behaviors that are caused by, or dependent upon, the infant's behaviors (Goldberg 1977; Dunst 1981). These response-contingent behaviors, initiated by imitation, allow infants to learn that they can control some aspect of their environment and may lead to increased exploration (Lewis and Goldberg 1969; Goldberg 1977).

However, interaction patterns between parents and their child with disabilities are often disrupted because the parents are more directive and less responsive during interactions than are parents of nondisabled children (Marshall, Hegrenes, and Goldstein 1973; Buium, Rynders, and Turnure 1974; Terdal, Jackson, and Garner 1976; Buckhalt, Rutherford, and Goldberg 1978; Jones 1980; Eheart 1982). Directive, controlling interactions are characterized by the use of *mands*—verbal statements made by the caregiver with the expectation that the child's behavior will change as a result (Powers and Osborne 1976). Several researchers have found that mothers of young children with disabilities use directive mands more often than mothers of developmentally matched nondisabled infants (Burkhalt, Rutherford, and Goldberg 1978; Mahoney and Robenalt 1986; Walker, Levine, and Grasse 1982). This interactional pattern may develop because the child doesn't contribute as much as expected to the interaction, so parents become more directive as a means of continuing the interaction (Bailey and Slee 1984). Yet Mahoney, Powell, and

Finger (1985) found that children with the highest developmental scores had mothers whose interactive style was characterized by a high degree of child orientation and a low degree of control.

Interestingly, the responsibility for a child learning *to imitate* seems to rest with the parents, because their interactive style appears to be closely related to their responsiveness to their child. Several studies have demonstrated that some young children with disabilities vocalize repetitively without allowing their mothers to take a turn (Jones 1977; 1980), while others may not take turns or respond to their parents at all (Bailey and Slee 1984). Mahoney and Powell (1986) have suggested, however, that teaching parents to imitate their child is an effective strategy for increasing responsiveness. Other effective strategies are turn-taking and decreasing parental mands. These behaviors—turn-taking, imitation, and reduced mands—may be related skills. Brown-Gorton and Wolery (1988) found that parents' imitation of their child was inversely related to the number of mands they made; that is, as imitative responses increased, mands decreased.

Turn-taking is a critical component of reciprocal interactions, beginning with such behaviors as eye contact (Stern 1977). A little later, when sounds are added to the turns, the parent and child begin to take turns "talking" and waiting for the other to respond (Bullowa 1979). This sense of turn-taking continues throughout childhood and seems to contribute to the learning of nonverbal and verbal communication, as well as conversation skills (Kaye and Chaney 1980; Gillette 1989; MacDonald 1989; MacDonald, Gillette, and Hutchinson 1989). Reciprocal turn-taking further teaches the child how to maintain an interaction because the child's sounds and movements function to maintain the parent's attention and participation (Bell 1971; Siegel-Causey, Ernst, and Guess 1987). This knowledge allows the child to move from imitating sounds and movements produced by the parent to taking the lead in play and other types of interactions (Bruner 1978; Leonard 1984).

An important aspect of turn-taking and imitation is the enjoyment that each partner experiences (Bullowa 1979). However, infants with disabilities are more likely to cry or appear sad than their nondisabled peers as they engage in these interactions, and so are the parents (Field 1983). Symons and Moran (1987) reported that parents who were taught to imitate their baby felt that the imitation sessions were less communicative than sessions in which other types of interactions occurred. Once again, we see the need to work with the parents to interpret their child's behavior accurately and to derive enjoyment from the imitative responses that their child gives.

Thus, we may conclude that increasing parental imitation is important for both parents and children as a method of increasing the child's ability to imitate and the occurrence of response-contingent, reciprocal interaction. The parents may not be deriving significant enjoyment from these interactions due to the

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child's relative unresponsiveness, and moreover, their interactive styles may be too directive. Therefore, any successful intervention must include, and probably begin with, the parents. Although many of the interventions that follow are not designed to change the child's behavior directly, the behavior will change as a result of the change in the parent's responsiveness. Many studies indicate that teaching parents and caregivers to be more responsive is relatively easy (Symons and Moran 1987; Brown-Gorton and Wolery 1988). At the same time, the teacher must remain sensitive to the affective needs of the parent throughout the process.

Early Interventionists' Guide: Imitation

Most children develop interactive skills without intervention, but for infants with significant disabilities, these developmental skills either may not develop or may develop much later in life than a parent or caregiver expects. Turn-taking and imitation by parents are highly effective interventions for teaching imitative skills to children.

Virtually any activities that match the child's interests and level of functioning can be used for teaching turn-taking and imitation. It is important to highlight the reciprocal nature of turn-taking and imitation; be sure that each activity is arranged so that each person has a chance to take a turn. Turn-taking and imitation can occur during a paired activity, in which both parent and child are engaged in a mutual, interactive activity, or in a parallel activity, in which the parent and child play alongside each other doing the same activity. (For example, a child plays with one set of geometric shapes while the parent plays with another set.) These activities may be physical, social, or toy oriented and may be communicative or noncommunicative.

Many of these strategies for teaching turn-taking and imitation have been used successfully in the Charlotte Circle classroom and are similar to those described elsewhere by MacDonald and his colleagues (MacDonald and Gillette 1984; 1985; 1986; MacDonald 1989) and Mahoney and his colleagues (Mahoney and Powell 1986; 1988; Mahoney et al. 1986; Mahoney and Robenalt 1986). They are presented as structured learning opportunities that allow the parent or caregiver an opportunity to practice newly acquired turn-taking and imitation skills. Parents should be encouraged to continue structured types of interactions each day but also to incorporate turn-taking and imitation into all interactive situations throughout the day.

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Lesson 1: What Is a Turn?

MATERIALS NEEDED pencil and paper

toys for free play

PURPOSE Because many parents may have developed a directive style of interaction to compensate for their child's lack of response, a first step is to identify what constitutes a turn and how long parents should wait before attempting another interaction. In order to complete the strategies presented in the first lesson, the parents will have to understand the definition of a turn, collect data regarding their turn-taking responses, and practice taking turns. Teaching parents to take turns is relatively easy, usually requiring only some explanation and practice with feedback, either from an interventionist or from a spouse.

STRATEGIES First, arrange to observe a brief free-play situation (five minutes should be sufficient) in which the parent and the child can be expected to interact either verbally, socially, or physically. Using the definition that follows, observe the parent's and the child's turn-taking behaviors. Tally on a piece of paper the number of times the parent interacts with the child and the number of times the parent waits for the child to respond before initiating another interaction. For example, if the parent says, "Look at the pretty toy," then almost immediately asks, "What do you think this toy can do?" without the child responding, that would be scored as one interaction and zero turns, because the child never responded. On the other hand, if the parent had waited for five to ten seconds before asking the second question, that would be scored as two turns.

Do not explain turn-taking to the parents before collecting your data for at least two reasons. An obvious reason is to collect pre-intervention data so the change in the parent's and the child's behavior after intervention can be determined. If you tell the parents about turn-taking before collecting data, you will actually have intervened before you collected any data. A second reason is that you may find the parents are very good turn-takers, and intervention is not required. Why waste your time and theirs?

After collecting baseline data, describe and discuss with the parents the importance of imitation and turn-taking, especially as the skills relate to their child's development. Be understanding, because the child's lack of response may overwhelm the parents at first. Next, explain the definition of a turn to the parents.

DEFINITION OF A TURN A turn is any behavior that either responds to the child's behavior or initiates contact with the child. In balanced turn-taking, the first person takes a turn, then the second

person takes a turn. Obviously, this requires that each person wait for the other person to respond.

A turn is completed when one of the following occurs:

1. There is a pause of more than a few seconds in the interaction.
2. The second person's turn begins and, as a result, the first person stops.
3. During a turn, the person changes the action or conversational topic.
4. One person contributes an action or utterance that socially or linguistically requires a response.

Discuss with the parent the data you collected during the free-play situation. Present these data in a nonthreatening way; they may be typical of the parent's interaction with the child, but together you can work to develop more balanced turn-taking.

Periodically throughout the intervention process, arrange a similar free-play activity to observe changes in the parent's turn-taking. You can also teach the parents to observe each other informally and remind each other to let the child take a turn.

Lesson 2: Take a Turn and Wait

MATERIALS NEEDED paper and pencil

toys

other prompts for interaction

PURPOSE This activity is for parents and caregivers who have difficulty waiting long enough for their child to take a turn. Taking turns in a balanced, reciprocal way requires that each time one person takes a turn, that behavior is followed by the other person taking a turn. Children with severe disabilities are often extremely slow to respond, however, which affects their turn-taking. Their handicapping condition may impair their ability to respond. They may be slow to process information. They may also never have learned that they are expected to participate actively in a social interaction. Adults usually have difficulty waiting long enough for the child to respond, especially when the wait seems abnormally long. Most adults will react by repeating their request or action several times before the child responds once. This results in a turn-taking imbalance. Adults dominate the interaction. (As an illustration, the next time someone asks you a question or makes a request, count to ten before you respond. See how long ten seconds feels? Watch the other person's reaction during this ten-second pause. What does the person do?)

STRATEGIES Discuss how natural it is for the parent to "fill the void" when the child doesn't respond within a few seconds. Discuss the reasons why the child may be slow to respond and stress the importance of waiting for a response.

Introduce the parents to "Take a Turn and Wait." At first, each turn should be one simple, discrete behavior. Avoid complex strings of related verbal or physical behaviors. For example, have one parent shake a toy briefly, then wait several seconds for the child to respond. While waiting, the parent should not behave in any way that constitutes another turn, but should look at the child with an expression of anticipation; the parent is waiting for a response. The length of this wait should be determined individually, but probably should not last longer than ten seconds. When ten seconds has elapsed, or if it becomes clear that the child will not take a turn, then the parent should take another turn.

Have the parents tally on a sheet of paper the number of turns they took and the number of turns their child took. Teaching the parents to record data in this simple way will allow them to notice progress.

Lesson 3: Prompt a Turn

MATERIALS NEEDED paper

pencil

toys

other interaction prompts

PURPOSE If progress is slow and the child continues to be unresponsive, then the adult may have to begin prompting a response. Several types of prompts, or signals, have been proven effective. Encourage the parent to select the least intrusive prompt; for example, if the child responds to a facial cue, then the parent does not have to use a physical prompt.

STRATEGIES One way to signal that it is the child's turn to respond—"waiting with anticipation"—was mentioned in lesson 2. The parent should maintain eye contact, with a facial expression and body posture that communicate (nonverbally) that the child is expected to do something.

The next level of prompt is to point at the child or use some other hand signal. After taking a turn, have the parent point to the child to communicate that it is the child's turn to do something. Nonverbal signals such as these may be more effective with nonverbal children. Have the parents use their whole bodies to communicate their anticipation that the child do something. Have them practice this, so that the prompts do not become turns themselves. The

gestures should be natural, relatively subtle cues that do not disrupt the interactions.

The most intrusive level of signal is a physical prompt. Restraining or guiding a child through a response may be necessary when the child either dominates the interaction and does not allow the parent to take a turn or is so unresponsive as to require extra assistance to engage in any interaction. Emphasize that parents should eliminate these physical prompts as soon as possible so the child will learn to respond to more natural turn-taking cues.

Physical prompts are probably most useful for the child who has difficulty letting others have a turn and needs to learn to engage in reciprocal interactions. Turn-taking requires the child to be quiet and attentive to the adult. The parent may occasionally gain this child's attention by gently holding the arms or shoulders while making eye contact. The child may have to be restrained in this manner long enough for the parent to take a turn. Physical prompts are probably less useful for the unresponsive child, unless they involve some type of physical guidance to perform a particular response—such as guiding the child's arm in reaching for a toy to shake.

Have the parent record data as discussed in lesson 2. These data will be useful for judging progress and also for determining whether a particular prompt can be gradually eliminated. When the child is responding with high frequency, have the parent take a turn and offer either no prompt or a less-intrusive prompt. If the child's performance does not deteriorate, then the prompt can be eliminated. If the child's behavior does change, then maintain the prompt for a little longer.

Lesson 4: Imitate the Child's Responses

MATERIALS NEEDED toys

other interaction prompts

PURPOSE Lesson 4 presents strategies that allow children to begin initiating interactions and exercising some control over their social environment. Imitation is a powerful strategy for increasing children's level of participation and initiation in an interaction. They begin to recognize that they are initiating and controlling the interaction when their parents imitate their responses. Also, the combination of turn-taking and parental imitation seems to help children learn to imitate; the earliest forms of imitation occur when children imitate their parents imitating them. It is much more difficult for children to imitate other behaviors. Adults can imitate any of the child's behaviors. Many times, adults can gain a child's attention by imitating even behaviors that appear to be inappropriate, such as rocking or throwing objects.

The goal of imitation is to develop children's awareness of the relationship between their behavior and that of others. Teaching new or more appropriate behaviors is not the goal at this point. Once children learn that they are controlling their parents' behavior, the frequency of appropriate behaviors will increase.

Parents should limit their imitation to behaviors that are appropriate for the child's developmental level. Although the developmental ages for all types of imitative behaviors have not been empirically identified, Bailey and Wolery (1984) have suggested the following developmental milestones in learning to imitate. Remember that these ages are approximate and are expressed in *developmental* ages rather than chronological ages.

Table 5. Development of imitation skills

Age in Months	*Imitation Skills*
0–1	Mainly reflexive behaviors
1–4	Irregular vocal imitation; occasionally imitates a sound that is known but has not previously been produced
4–8	Systematic imitation, usually limited to sounds and movements previously performed
8–12	Consistent imitation of movements that the child cannot see self perform; imitation of new behaviors begins
12–18	Systematic imitation of new behaviors
18–24	Representative imitation regularly apparent; delayed or deferred imitation seen

STRATEGIES

These ages suggest the types of behaviors that parents should be encouraged to imitate. For example, at the six-month level the parents should imitate sounds and motor movements that the child has performed previously. At the ten-month level, parents may begin to model behaviors that children cannot see themselves do, such as facial expressions. Provide assistance when necessary. For example, using a mirror can be very helpful during the early stages of teaching children to imitate gestures or facial movements that they cannot ordinarily see. Finally, children should be lavishly reinforced for imitation attempts. Encourage parents to give lots of hugs, smiles, and other positive feedback.

The following are other imitation training strategies:

Increase vocalizations: Imitate exactly what the child says, without editing. Imitate any sounds the child makes.

Imitate familiar actions: Copy the child's actions as accurately as possible.

Here are brief guidelines to suggest to parents:

1. Imitate the child as exactly as possible.
2. Don't expect the child to imitate behaviors that are beyond the child's developmental level.
3. Provide assistance (such as mirrors) when necessary.
4. Make imitation activities fun!
5. Reinforce the child for these imitative interactions.

Lesson 5: Letting the Child Lead

MATERIALS NEEDED: toys

other interaction prompts

DEVELOPMENTAL PREREQUISITES: "Letting the Child Lead" is designed for children who engage in mutual imitation with their parents on a fairly regular basis.

PURPOSE: Imitation is effective for engaging children in turn-taking. Imitation alone can become boring very quickly, however. It also is unlikely to facilitate other types of developmentally appropriate behaviors. Letting children lead encourages them to maintain their role as the initiator of activity and may increase the likelihood of continued participation in the interaction. At this point, it is far more important for children to sustain participation in activities that they are controlling than it is for them to play or interact according to adult standards.

STRATEGIES: "Letting the Child Lead" depends on adults perceiving accurately what the child is doing and responding in a way that is related to the child's behavior. For example, if the child throws a stuffed animal instead of cuddling with it, then we can assume that the child understands stuffed animals as things to throw instead of (or as well as) things to hug. A parent could follow this child's lead by throwing the animal in a different direction (up, for example) or by introducing another stuffed animal and bouncing it instead of throwing it.

"Letting the Child Lead" requires that the parent play with toys or engage in other social interactions in the same way as the child and avoid trying to make the child play with toys in the expected way. The parent must be willing to play however the child wants to play.

This activity, like the others in this section, should be fun for both the parent and the child. A major stumbling block may be the parent's embarrassment at behaving in ways that adults don't normally behave. Remember, reinforcement is important for the parent as well as for the child.

Lesson 6: One More Time

MATERIALS NEEDED toys

other interaction prompts

PURPOSE This activity is intended for very active children who may move rapidly from one activity to another without waiting for others to take a turn in the activity. Many children with severe disabilities have difficulty engaging in an interaction for more than one or two successive turns. Although it may not be very important for the child to sustain turn-taking in any given activity for a long period of time, a goal of three successive turns does not seem unreasonable.

STRATEGIES Select an activity, interaction, or toy that is enjoyable for the child. Schedule short episodes of turn-taking.

"One More Time" should not be used to force the child to interact, but rather to indicate that the child is expected to engage in longer episodes of interaction.

To implement "One More Time," have the parent physically restrain the child who attempts to "break" from an interaction before completing a third turn. The parent can focus the child's attention by gently grasping the arms or shoulders. Encourage parents to verbally describe their expectations. Remember, this activity should be enjoyable. Only the parent should know that "work" is being done, too.

Data Collection Strategies

Two data-collection strategies are recommended for evaluating progress in increasing turn-taking and imitation.

1. To determine the frequency of turn-taking, tally marks on plain notebook paper are sufficient. The critical information is the ratio of interaction initiations to turns taken. Ideally, for every social interaction initiated, the interaction parther will take a turn. This simple tally system is also useful for evaluating the effects of any intervention on turn-taking and deciding when to remove or decrease physical prompts.
2. To socially validate the improvement in imitation and turn-taking, ask parents, early interventionists, or other people significant to the child to complete the following rating scale periodically throughout the intervention process.

Turn-Taking Evaluation

Circle the number that best answers the following questions.

Does your child participate in turn-taking?
How much does your child interact with you?

1	2	3	4	5
I see no difference		Seems to interact a little more		Interacts much more; much more fun to be with

Does your child imitate?
Does your child imitate more types of activities now?

1	2	3	4	5
I see no difference		Seems to imitate a little more		Imitates much more; much more fun to be with

Is your child fun to be with?
Is the time you spend with your child enjoyable?

1	2	3	4	5
I see no difference		Seems to be a little more fun		Much more enjoyable

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Early Communication

Value

Parents of young children who are disabled have said that the most pleasant, rewarding behavior they see in their children is the attempt to communicate though expressions, gestures, sounds, or words (Rose, Spooner, and Calhoun 1988). Although spoken words may be the most commonly acknowledged form of communication, parents in this study seemed to recognize communication in a much broader perspective and to value the giving and receiving of messages in other forms as well. Communication can occur in many verbal and nonverbal modes; the key to communication is learning how to affect another person's behavior.

Words emerge from a larger repertoire of nonverbal communication and are based in social interaction (MacDonald and Gillette 1986). Social experiences and meaningful interaction with responsible adults are necessary precursors to verbal communication (Sternberg, McNerney, and Pegnatore 1987). While symbolic communication (that is, the use of words or other language symbols) may be a long-term goal for children, goals that address the larger base of interactive behavior and support children in moving from reflexive to purposeful communication can be of great help to families and children in early intervention programs.

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Sample IFSP Outcomes: Early Communication

Outcome #1

Parents and interventionists will learn to recognize behaviors the child uses to indicate the desire to begin, continue, or end an interaction or activity.

Outcome #2

Children will develop signals that consistently communicate "please keep doing this activity" and "please stop doing this activity." Adults will respond appropriately to such signals.

Outcome #3

Children will increase expressive communication by making vocal sounds.

Theoretical Perspective

The social basis of language and communication has been summarized by Rogers-Warren and Warren (1984) in these five assumptions:

1. Language is a social behavior.
2. Language is based on social interaction and arises from the child's early nonverbal communicative exchanges with caregivers.
3. Language is learned.
4. Complex forms of communication are built on simpler forms.
5. Language is learned in social contexts.

The other chapters in this curriculum guide are, in fact, about early communication; the chapters on imitation, playfulness, smiling, and crying all offer strategies to enrich the social interactive basis for language. This section builds on the foundation of supporting and encouraging interaction by addressing other issues that encourage early communication, namely helping parents read and respond to their children's increased vocalizations.

Early communication apparently emerges in three stages—perlocutionary, illocutionary, and locutionary—each of which evolves from the preceding stage (Bates 1979). Throughout these three stages, the child's behavior moves from largely reflexive and unintentional communication, to the purposeful use of gestures or vocalizations to direct adult attention, and finally to the use of words as symbols. These stages in development occur in the first eighteen months of life in most normally developing children, and the order of development remains relatively constant for older children whose sensory, motor, or cognitive handicaps may contribute to delayed development of communication skills (Harrison, Lombardino, and Stapell 1986-87).

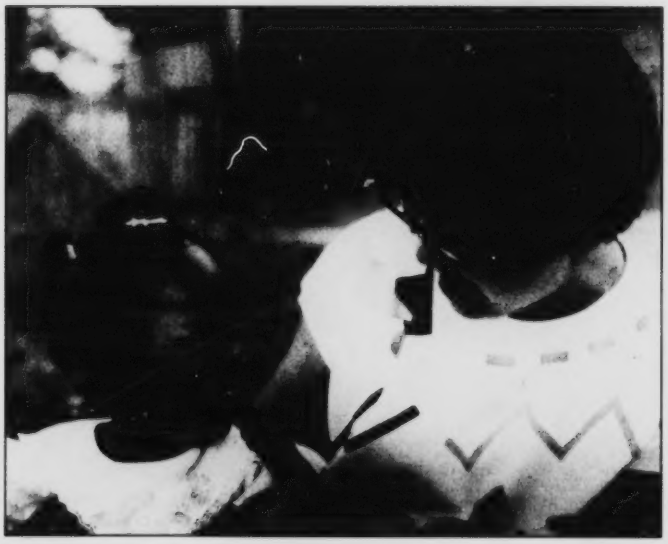
For children from birth to three years of age who have substantial disabilities, the focus should be on the earliest stage of communication development. In this early stage, the child is unaware of the potential to influence the behavior of adults. The child's behaviors are either directed by internal needs (such as hunger), or they occur in response to external events. The primary goal at the perlocutionary level is to develop communicative responsiveness in adult-child interactions (Harrison, Lombardino, and Stapell 1986-87). Adults must learn

to recognize behaviors which signal the child's desire to initiate, maintain, or terminate an interaction.

Adults' responsiveness to young children can increase as they learn to recognize the special body language young children use to express their needs and to interact with others (Hedlund 1989). Als (1986) suggests that the following are avenues of communication for infants:

1. *The autonomic system,* expressed in patterns of respiration, color changes, visceral changes (such as burping), and neurological indications (such as seizures, startles, or tremors).
2. *The motor system,* observable in the child's posture, tone, and fine and gross motor movements.
3. *The state organizational system,* which includes states of deep sleep, light sleep, drowsiness, alertness, active alertness, hyperalertness, and crying.
4. *The attention and interaction system,* which allows the child to come to an alert, attentive state and take in information from the environment.

Encouraging parents to read the cues that come from these avenues of communication, interpret their meaning, and respond accordingly is the first step in increasing communicative responsiveness. This work is especially important for parents of infants who are disabled because the cues may be more difficult to interpret (Dunst 1983). In an investigation of the relationship between the degree of infant disability and clarity of infant cues, Yoder (1987) found that observers agreed on the occurrence of an infant communication a lower percentage of the time when coding infants who were severely disabled than when coding less disabled infants. Because infants who are disabled may be less "readable" than other babies, some guided, shared work in hypothesizing about the meaning of infant behavior could be a helpful intervention for families.



A second area of emphasis in early communication intervention is to help the child move from reflexive to purposeful communication. The teaching strategy of contingent responding may be helpful at this early level (McLean and Snyder-McLean 1978; MacDonald and Gillette 1984). In contingent responding, adults respond in predictable ways to children's behavior, allowing children to observe the effects of their behavior on the environment and make associations between their behavior and the adult's response. Because adults respond differently to different child behaviors, children can begin to link actions with meaning and thus move toward purposeful communication.

Making the action-to-meaning connection can be facilitated for children by working within their current behavioral repertoires and teaching them to use already existing behaviors to signal and request activities; this work in signaling enhances the probability that more complex communication skills will

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develop. Sternberg and his colleagues (Sternberg, McNerney, and Pegnatore 1987) found that students with profound mental retardation could learn signaling behaviors and use them to initiate imitation activities. These researchers suggest that prelanguage signaling is crucial to the development of more representational signals such as natural gestures, formalized gestures, and words. Among the signals used by the students in this study were grasping the adult's finger, clapping hands, and tapping the back of one hand with the other hand.

In linking actions to meaning, not only does the potential signal have to be identified, but also activities that are so pleasant and interesting for the child that the child will want to signal "please continue." Pleasant, reciprocal motor activities shared by the adult and the child are likely candidates. Van Dijk (1971) has intervened with children who have multiple disabilities using a series of distinct stages of training (see also Harrison, Lombardino, and Stapell 1986-87). The stages include *resonance* and *coactive* movements that occur in the context of positive motor-oriented interactions.

The resonance stage requires the adult to observe the child's gross motor movements. For example, it may be observed that the child likes to rock. The adult would then sit down with the child and begin rocking. After a while the adult stops, waiting for the child to show a desire for rocking to continue. If the child does react, the adult might make an appropriate gesture. The key to the resonance level is that the gesture comes from the child's own repertoire of movements.

Coactive movement means moving through space with the child. For example, adult and child may roll across a mat, then change to a crawl. After doing this several times so that the child is familiar with the routine, the adult stops when it's time to change from a roll to a crawl to see whether the child makes a switch. These activities can encourage memory and anticipation and focus on the social and cognitive factors underlying prelanguage communication (Stillman and Battle 1984).

Although speech sounds have not played any role in the early communication activities described so far, they are the building blocks that lead to the production of words. If a child is making any sounds other than crying sounds, the production of these sounds should be facilitated and expanded. While not all young children with substantial disabilities will learn to talk, many will, and in order to talk, infants must be able to produce speech sounds (Oller and Seibert 1988). A recent investigation of the babbling of prelinguistic children (age range 17 to 62 months) who were mentally retarded found that the great majority of the children produced well-formed syllabic babbling, although their vocal production was generally less than that of nondisabled, age-matched peers.

Encouraging babbling or other forms of early vocal production may be quite difficult because it is not possible to physically prompt a vocalization as it is to prompt a hand gesture (Kiernan, Jordan, and Saunders 1984). It is possible, however, to foster vocalization by rewarding vocalization when it occurs and by using the child's feeding program to make sure the speech musculature (lips, tongue) get a good workout (Morris 1982). The interdisciplinary efforts of the child's speech-language pathologist, occupational therapist, and teacher can identify ways to encourage speech sounds.

Early Interventionists' Guide: Early Communication

This section presents a three-part series of strategies—with corresponding parent handouts—for facilitating early communication between parents and their children who are too young to use words. The strategies are designed to be implemented by families with the help and support of the early intervention staff. Communication intervention with young children who are disabled requires an interdisciplinary effort. Speech-language pathologists, occupational therapists, and teachers should consult with families to determine appropriate individualized programs.

The purposes of these activities are to help parents read and respond to their children's behavior and to help children move from reflexive to purposeful communication. The general principles and strategies could be presented to parents in small groups, with adults role-playing various techniques. Developing particular communication strategies for each child, however, will require individualized intervention.

Lesson 1: Communication Cues from Children

MATERIALS NEEDED

Communication Cues from Children handout

videotaping equipment

one video tape (60 or 90 minutes) per child

PURPOSE

Any behavior can be communicative. Communication is not restricted to words, signs, or other conventional systems. The purpose of this first lesson on parent-child communication is to help parents understand the significance of their child's unique body language and interpret the communication inherent in that body language.

STRATEGIES

A child who doesn't talk, even a child who doesn't make sounds, still can and does communicate with others. Using the Communication Cues from Children handout, help parents identify possible communication cues that their children use. Be especially alert for changes in these areas:

- a shift in attention to a new activity
- a shift in manner of play with a toy
- a shift in emotional state
- a shift in level of alertness
- non-fuss or non-cry vocalization

Have parents describe as precisely as possible the specific cues they observe in their child. Consider the four avenues of communication described previously: the *autonomic system*, the *motor system*, the *state organizational system*, and the *attention and interaction system* (Als 1986).

Videotape parents and children engaged in caregiving and social interactions. Ten-minute segments of the parent and child in the following contexts is recommended:

- feeding
- changing/dressing
- teaching the child a new skill
- engaging in a favorite social activity

Watch the tape with the parents. Look for shifts in the child's attention and state of alertness. Interpret together what the child's communicative intent in each shift might be. Discuss how the parent might respond appropriately to the message the child is conveying.

Continue to record ten-minute samples of parent-child interaction in the four contexts every six or eight weeks. Review the tapes together and note any changes in the child's communication: Are the cues easier to read? Are there more cues?

Lesson 2: Early Signaling Systems

MATERIALS NEEDED Developing a Signaling System handout

videotaping equipment (optional)

PURPOSE Communication incorporates any messages sent in any modes (movement, sounds, words); the key issue is the intention of having an effect on someone else. Earliest communication goals for young children should focus on helping children develop intentional communication. Effective communication can develop from random behaviors if adults respond contingently to different behaviors from children. This lesson helps adults work with children to develop intentional signals to communicate (1) "please keep doing this activity" and (2) "please stop doing this activity."

STRATEGIES Work with the parents to identify at least one motor response the child can perform consistently. Examples include the following:

- turning head away
- closing eyes
- grasping parent's finger
- clapping hands
- reaching toward parent
- kicking feet

1. Observe the child's motor behavior together and have the parent describe it as precisely as possible. This motor behavior will become a signal to communicate something to an adult.

2. Now work with parents to identify activities that the child seems to enjoy. Some possibilities are described in the parent handouts in the Play chapter.
3. Pairing a consistent motor response and a favorite activity will begin to develop a signaling system. Here is the teaching strategy that links a motor response to an intended meaning. This strategy is summarized on the Developing a Signaling System handout.
   a. The parent or teacher stands or sits very close to the child.
   b. The parent or teacher requests that the child display the motor signal. Pair the verbal request with a model of the signal, then physically guide the child to make the gesture, if necessary.
   c. The parent or teacher then participates with the child in a shared favorite activity (such as moving to music).
   d. After a short period of movement, the parent pauses and sees whether the child uses the signal to request resumption of the activity. While waiting, the adult should look at the child expectantly.
   e. If the child uses the signal, the parent should begin the activity again. If the child does not use the signal, the signal-to-movement instruction should begin again (request, model, physical guide, then begin the movement).
   f. The adult should follow the child's signal with a word or phrase that indicates that the signal is interpreted as a request to continue the action: "More?" "Do it again?"
4. When a signal is used with some consistency with one favorite activity, begin to generalize its use to other favorite activities.
5. Parents can role-play this instructional sequence with you or each other before attempting it with their children.
6. Videotaping parent-child sessions can be helpful in evaluating the effectiveness of a child's signaling system.
7. Once a signal has been established for "please continue," the next step in expanding the child's repertoire of intentional communicative behaviors is to find a signal for protesting: "Please stop" or "No, thank you." Again, the signal should be a motor behavior that the child already does (head turning, closing eyes, kicking feet, and the like). It should be distinctly different from the signal for "please continue."

Protesting should probably not be taught using favorite activities, but rather paired with more routine activities that can be stopped on request. Look for naturally occurring events that a child may wish to discontinue (eating applesauce, for example, or standing in a prone stander). When it is acceptable for the activity to end and you sense the child would like the activity to end, teach and prompt the signal that means "please stop."

By learning to use just these two signals—drawn from already known behaviors—the child has made an important start on the communication journey by learning that signals are linked to actions, signals influence adults' behavior, and signals have representational meaning.

Lesson 3: Vocal Sounds

MATERIALS NEEDED

More Sounds/New Sounds handout

Sounds My Child Makes handout

audiotaping equipment

reinforcers (see Appendix B)

PURPOSE

Since speech sounds are the building blocks of spoken language, it is important to encourage sound production. While it is not feasible to help a child learn new sounds by modeling or physical guidance, it is possible to foster vocalization by setting up situations in which vocalization is likely to occur and rewarding children's utterances. The strategies suggested here encourage children to make sounds more often and to make new sounds.

STRATEGIES

Survey the child's current level of vocal production.

1. Ask parents to complete More Sounds/New Sounds, a survey of speech sounds heard in one day.
2. Observe the frequency of vocalization. When the child is alert, audiotape a ten-minute play session of the child and parent doing a favorite activity. Together with the parent, listen to the tape and count up the number of vocalizations heard.
3. Using the list of reinforcers in Appendix B, identify likely reinforcers to reward vocalizations.
4. Repeat the audiotaped play activity using the identified reinforcers and see whether vocalization increases. Continue experimenting with reinforcers until an effective reward is identified.
5. Using the More Sounds/New Sounds handout, discuss and practice with parents techniques to foster vocalization: imitation, reward, motor activities, vocal play, and conversation.

6. Continue to audiotape play activities as you experiment with various conversational styles. Which style seems to encourage the child's vocalizations?
   - a conversational level that seems natural to the parent
   - more talking than usual
   - a system of balanced turn-taking (see Imitation)

   If one style seems to be more effective than the others, encourage that style.

Data Collection Strategies

These data collection strategies are recommended for evaluating progress in early communication:

1. To evaluate progress in recognizing child behaviors that signal the desire to begin, continue, or end an interaction or activity, videotape ten-minute samples of parent-child interactions every six to eight weeks.

   Review the tapes together and catalog the child's communicative behaviors:
   - What cues do you see?
   - Do the cues become easier to read?
   - Are there more cues?
   - Do parents respond contingently to cues, that is, are parents recognizing the child's behavior, interpreting it, and responding to the message (for example, stopping an activity when the child seems exhausted or bored)?

   Keep the tapes and the answers to questions as part of the child's progress record.

2. To evaluate progress in developing recognizable signs that have communicative intent, observe 5-minute time samples of the adult and child doing a favorite activity. Have the adult pause at 30-second intervals and invite the child to use the signal for "more." If the child does not signal, repeat the instructional sequence. Tally the frequency of signals used by the child during the 5-minute play period. Approximations of the signal should be noted but not scored.

3. To evaluate changes in the number of different sounds heard, complete Sounds My Child Makes once a month and count the number of different sounds observed. Specify new sounds in progress notes to parents.

4. To evaluate the frequency of vocalization, conduct audiotaped play sessions on at least a monthly basis. Count all vocalizations heard and graph the number. Crying should not be counted. All other vocal sounds should be counted, including tongue clicks and lip smacking.

   A string of syllables (a-a-a-a) is counted as one vocalization. After a pause, the following sounds are counted as a new vocalization, even if the child is repeating the same sound.

Communication Cues from Children: What Do I Look For?

INSTRUCTIONS **Check in the first box the behaviors you observe in your child. In the middle box, describe exactly what your child does. In the bottom box, write down what that communication might mean.**

What my child does

___ shifts attention to a new activity
___ shifts the way of playing with a toy
___ shifts emotional state
___ shifts in level of alertness
___ vocalizes

My child's unique body language

Consider breathing, color, posture, tone, motor movements, and alertness.

What this communication might mean

Examples: Does my child want more stimulation? Less?
Does my child like what we are doing? Is my child alert?
Cranky? Exhausted?

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Señales de Comunicación del Bebé: ¿Qué Hay que Reconocer?

INSTRUCCIONES **Ponga una marca al lado izquierdo de la actitud que observe en su bebé. En la segunda parte, describa detalladamente la apariencia del bebé. En la trecera parte escriba lo que pudiera significar esa actitud o comunicación.**

Lo que hace mi bebé

___ Cambia su atención de una actividad a otra
___ Cambia la manera de jugar con un juguete
___ Cambia su estado emocional
___ Cambia su nivel de viveza
___ Vocaliza

El lenguaje corporal particular de mi bebé

Tenga en consideración la respiración, el color, la postura, el tono, los movimientos y la viveza.

Lo que puede significar esta manera de comunicación

Ejemplos: ¿Quiere más estímulo mi bebé? ¿Menos? ¿Le gusta lo que estamos haciendo? ¿Está alerta? ¿Malhumorado? ¿Cansado?

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Developing a Signaling System

1. List movements that your child can do consistently. (Examples include turning head, closing eyes, grasping your finger, clapping hands, kicking feet, reaching toward you.)

   _____

   _____

   _____

   The child can learn to use these movements to give you messages.

2. Next identify some activities that you and your child enjoy doing together. Think of an activity that requires movement. (Examples include moving to music, rolling, and rocking.)

   List your child's favorite activity here.

   _____

   _____

3. Now your therapists will help you match up a consistent motor response (question 1) with a favorite activity (question 2) to teach your child to signal you. The first message we will teach is "more."

   a. Stand or sit very close to your child.

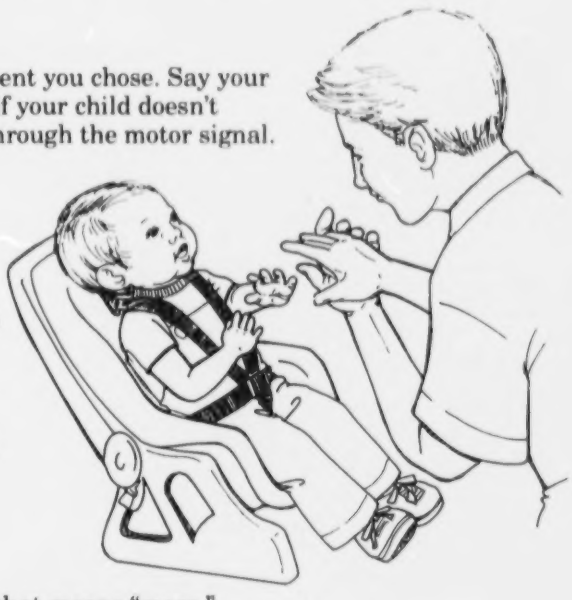
   b. Request that your child do the movement you chose. Say your request and act out the gesture, then if your child doesn't respond, physically guide your child through the motor signal.

   c. Do the favorite activity with your child for a few minutes only.

   d. Stop the activity. Look at your child expectantly.

   e. If your child uses the signal, begin the activity again.

   f. If your child does not use the signal, say, "More? Do it again?" and guide your child through the signal (step b). Now repeat the activity. Repeat these steps several times.



You have now taught your child a signal that means "more." Your child is beginning to communicate with you!

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Desarrollo de un Sistema de Señales

1. Haga una lista de los movimientos que hace su bebé con consistencia. Por ejemplo, voltea la cabeza, cierra los ojos, se agarra de un dedo de Ud., palmotea las manos, da patadas, trata de alcanzar a Ud.

   _____

   _____

   _____

   El bebé puede aprender a utilizar estos movimientos para darle mensajes.

2. En seguida identifique algunas actividades que les gusta hacer juntos a Ud. y al bebé. Piense en una actividad que requiere movimiento. (Por ejemplo, moviéndose al compás de música, rodando y meciéndose.

   Anote aquí la actividad favorita de su bebé.

   _____

   _____

3. Ahora su terapista le ayudará a hacer pareja de las respuestas del bebé (pregunta nu. 1) con una actividad favorita (pregunta nu. 2) para enseñar a su bebé a comunicarle señales a Ud. El primer mensaje que le enseñaremos a comunicar es "más."

   a. Párese o siéntese muy cerca del bebé.

   b. Pídale a su bebé que haga el movimiento que Ud. escogió. Dígale lo que Ud. desea que haga, haciendo ademanes y entonces, si su bebé no responde, físicamente guíe a su bebé para que haga el movimiento.

   c. Haga la actividad favorita con su bebé por unos cuantos minutos solamente.

   d. Cese la actividad. Quédese mirando a su bebé con expectación.

   e. Si su bebé use la señal, empieze la actividad otra vez.

   f. Si su bebé no use la señal, diga, "¿Más? ¿Quieres hacerlo otra vez?" Guíe a su bebé por la señal (paso b). Ahora repita la actividad. Repita estos pasos varias veces.

   Le ha enseñado a su bebé la señal que quiere decir "más." ¡Ya está empezando a comunicarse con Ud.!

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More Sounds/New Sounds: Ideas to Help Your Child Vocalize More

1. When you hear your child make a sound that's not fussing or crying, get your child's attention and briefly imitate the sound. Teach all family members to do the same. Imitate all sounds including clicks and gurgles.

2. Find a reward that your child loves. Reward your child for making sounds.

3. Look for activities during which your child makes lots of sounds. Do some of these activities every day. Some ideas are:
   - playing in the water
   - swinging
   - rolling on an exercise ball
   - light tickling
   - singing

4. Play games with sound:
   - Make babbling noises into an empty coffee can so that the sound echoes. Give your child a chance to do the same.
   - As you talk or sing, hold your child's head against your throat to feel the speech vibrations. Make many different sounds.
   - When your child is making noise, pat your hand over his or her mouth (in a "war whoop" fashion) to make a new sound sensation.
   - Invite your child to imitate you blowing bubbles, smacking your lips, opening and closing your mouth, and sticking out your tongue—any activities that involve moving the mouth. Play these games in front of a mirror.

5. Talk with your child every day. Explain and describe the things you're doing together, like getting dressed or doing household chores. Read aloud to your child at least five or ten minutes every day. You don't have to stick to "baby books"—poetry, magazines, or the newspaper are all fine. Your baby will enjoy just being close to you and hearing your voice.

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Más Sonidos/Sonidos Nuevos: Ideas que le Ayudarán a su Bebé a Vocalizar Más

1. Cuando Ud. oiga a su bebé hacer un sonido que no es un refunfuño o un llanto, consiga su atención y brevemente imite el sonido. Enseñe a los miembros de la familia a hacer lo mismo. Imite todos los sonidos, inclusive a chasquidos y gorjeos.

2. Escoja un premio que le guste a su bebé. Premie a su bebé por hacer los sonidos.

3. Busque actividades en que su bebé haga muchos sonidos. Haga algunas de estas actividades diariamente. Algunas ideas son como sigue:
   - jugando en el agua
   - columpiándose
   - rodando sobre una pelota de ejercicios
   - cosquillas
   - cantando

4. Juegue con sonidos:
   - Haga ruidos con una lata de café para hacer ecos. Déle al bebé la oportunidad de hacer lo mismo.
   - Mientras habla y canta, ponga la cabeza del niño contra su garganta para que sienta las vibraciones de su habla. Haga muchos sonidos diferentes.
   - Cuando su bebé está haciendo ruidos, déle palmaditas sobre la boca (como alaridos de guerra indios) para producir una sensación nueva de sonido.
   - Invite a su bebé a soplar burbujas, chupándose los labios, abriendo y cerrando la boca, sacando la lengua o cualquier actividad en que se mueva la boca. Juegue estos juegos en frente de un espejo.

5. Hable con su bebé todos los días. Explique y describa las cosas que hacen juntos, como vistiéndose o haciendo quehaceres. Lea en voz alta a su bebé por lo menos 5 o 10 minutos cada día. No tiene que leer sólo libros infantiles. Estaría bien leer poesías, revistas o periódicos. A su bebé le gustará estar con Ud. y oir a su voz.

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Sounds My Child Makes

Write the date at the top of the first column. Listen carefully to the sounds your child makes throughout the day. Check off the sounds that you hear in the box beside the sound. Count up the number of different sounds your child makes that day and write the number at the bottom of the column.

In the days to come, when you hear a new sound, write the date you heard that sound in the box beside the sound.

Repeat this survey at one-month intervals.

Date:				Date:			
			"p" as in papa				"r" as in run
			"b" as in boy				"ch" as in chew
			"t" as in toy				"v" as in van
			"d" as in dad				"x" as in fo*x*
			"m" as in mama				"a" as in cat
			"n" as in no				"a" as in cake
			"ng" as in si*ng*				"e" as in pet
			"k" as in kick				"e" as in feet
			"g" as in go				"i" as in sit
			"h" as in hug				"i" as in kite
			"f" as in food				"o" as in hop
			"w" as in wet				"o" as in hope
			"y" as in yes				"u" as in cut
			"j" as in joy				"u" as in cute
			"sh" as in shoe				"oo" as in good
			"s" as in sit				"au" as in cow
			"z" as in zoo				"oy" as in boy
			"l" as in love				
			Subtotal of this column				Number of different sounds heard today

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Sonidos que Hace mi Bebé

Escriba la fecha encima de la primera columna. Escuche cuidadosamente los sonidos que haga su bebé durante el día. Marque los sonidos que oiga en el lugar indicado a un lado del sonido. Cuente el número de sonidos diferentes que hace su bebé ese día y anote el número a lo último de la columna.

Durante los días siguientes, cuando Ud. oiga un sonido nuevo, anote la fecha en que lo escuchó en el lugar indicado a lado del sonido.

Repita este proceso a intervalos de un mes.

Fecha:				Fecha:			
			"p" de papá				"rr" de perro
			"b" de barco				"r" de pera
			"t" de taza				"ch" de chango
			"d" de dedo				"v" de uvas
			"m" de mamá				"a" de agua
			"n" de nene				"e" de elefante
			"ñ" de uña				"e" de guerra
			"c" de carro				"i" de iglesia
			"g" de gato				"o" de oso
			"j" de jugo				"u" de uña
			"f" de fresa				"au" de *au*to
			"ue" de h*ue*vo				"ai" de *ai*re
			"y" de yegua				"oy" de *voy*
			"s" de seda				"ei" de béisbol
			"l" de luna				
			Total de ésta columna				El número de sonidos diferentes que escuché hoy

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Relaxation

Value

The ability to give and receive comfort is a valued and important aspect of parent-infant interaction. The circle of enjoyable interactions between parents and infant depends upon the child's ability to relax, be comforted, and engage in self-calming activities. Babies with severe disabilities may have atypical motor responses, abnormal muscle tone, and hypersensitivity to touch. They may also lack the physical ability to organize their movements to adapt to the stresses in their world. These characteristics may interfere significantly with a comfortable parent-child relationship.

Helping a child relax and be more comfortable can contribute to more positive parent-child interactions. By breaking the cycle of stress for the child through proper positioning, handling, massage, rhythmic activity, and self-calming, life for the whole family can be more pleasant. The goal is to create a cycle of positive parent-child interaction instead of one driven by stressful interactions.

All people need some form of relaxation to help relieve the stresses of daily life. Very young children, especially those with disabilities, need a repertoire of relaxation techniques they can call upon when the world becomes too stressful for them. Unfortunately, these children are the least able to develop relaxation strategies on their own. This section gives caregivers of young children with disabilities some ideas for helping the children in their care relax and receive comfort.

Sample IFSP Outcomes: Relaxation

Outcome #1

Parents, classroom staff, and therapists will work together to identify functional positions and handling techniques for the child that lessen undesirable muscle tone and abnormal motor behaviors.

Outcome #2

Parents and caregivers will learn infant massage to promote the child's relaxation.

Outcome #3

Parents and caregivers will explore musical and other rhythmic activities that promote relaxation in the child.

Outcome #4

Parents and caregivers will learn techniques to promote self-calming by the child.

Theoretical Perspective

A relaxed state can sometimes be difficult to achieve under the best of circumstances. Most of us need some form of relaxation, or time to rejuvenate ourselves, to relieve the tension of day-to-day living. Adults have (we hope) learned to build regular relaxation activities into their hectic schedules. For one person, an evening walk might be just the thing to calm down, for another, a long hot bath or curling up with a good book might be soothing. Many activities enable adults to relax; we just need to explore our options and make the time for these activities.

For young children with disabilities, relaxation may be much more difficult. Caregivers need to help them explore their options for relaxation because they may be unable to relax without assistance. Without the ability to relax, mutually satisfying interaction between parents and child can be very difficult, yet the capacity of the infant and caregiver to respond to one another in mutually pleasurable ways is very important in developing attachment and early social skills (Hansen and Ulrey 1988).

The word *relax,* from the Latin word *relaxare*, means literally "to loosen" (Humphrey 1988). In the case of muscle tissue, relaxation means to loosen the muscle, releasing muscular tension that can be uncomfortable or even painful. The other aspect of relaxation is mental diversion—the mind is distracted from potential stress through some sort of activity (Humphrey 1988). A number of techniques have been proven successful in promoting relaxation in infants or children with disabilities. They should be taught to caregivers, for it is vitally important that they be able to soothe their children so as to feel effective and competent as caregivers.

Proper positioning and handling is one way to help the young child with disabilities relax by increasing physical comfort (Lough 1983). Many children who are developmentally delayed have trouble organizing their sensory and motor systems to allow for successful interaction with people and objects. Adapting the environment for these children makes them more able to cope with the demands made upon them and to build upon their strengths rather than being hindered by deficits (Williamson 1988). Proper positioning and handling removes stress from the caretaker as well, because the child is easier to feed, transport, and manage (Lough 1983).

Infant massage is one way parents and caregivers can provide relaxation for the child while engaging in a mutually pleasurable interaction (LeBoyer 1977). It is not only physically relaxing for the child, but also gives caregivers an opportunity to read subtle cues from the child and learn techniques for eliciting positive reactions in the child which are essential components of early communication. In one study where mothers massaged their infants with motor disabilities, both the infants and mothers demonstrated more compatible and positive interactions over time. More importantly, the parents' expectations of and behavior toward their children changed, enhancing the infant-parent relationship (Hansen and Ulrey 1988).

Studies of premature infants and newborn babies have indicated that regular touching, movement, and sound stimulation—as in massage—stimulate nerve pathways causing several physical changes in the infant. Among the documented changes are acceleration of neurological growth and weight gain, and increased cellular activity and endocrine function (Tappan 1978).

Touch is the first of the infant's senses to develop, and for parents, getting to know the feel of their baby promotes confidence in their ability to handle their child. Parents who develop their sense of touch and work toward a close physical relationship with the child are able to soothe the child far more easily. All babies respond to the way they are touched, and massage is an excellent way to provide for the child's inborn need for physical contact (Walker 1988).

Very young infants, and premature infants especially, have not yet mastered strategies for calming themselves when they are upset and out of control. Parents need to learn the most effective ways to soothe their babies as well as ways to modify activities and the environment to help the infant stay in control and self-calm. Premature infants frequently demand to be held, swaddled, or nestled in a corner of the crib or bassinet. Most infants have a preferred body position, and some use vision or noise (as in white noise) to calm themselves. The most common mechanism for self-calming in infants is sucking, usually (and preferably) on the hand (Sammons and Lewis 1985). Knowing the individual infant's preferred soothing activities can go a long way toward allowing more fulfilling interactions between parents and infant.

Rhythmic activity and music are two other strategies that promote relaxation and provide pleasant interaction for parents and children. Movement to music can promote body awareness and communication (Knill and Knill 1987). Rhythmic stimulation such as rocking, patting, or gentle rubbing are long-standing relaxation techniques for both adults and children.

Early Interventionists' Guide: Relaxation

Specific strategies in this section correspond with each of the IFSP outcomes for relaxation. The parent handouts describe activities parents can do at home. Interventions are organized around five topics: positioning and handling, massage, rhythmic activities, musical activities, and self-calming. Each of these topics can be introduced to families in small-group sessions or during individual home visits. Individualized follow-up support is recommended.

Lesson 1: Positioning and Handling

MATERIALS NEEDED

Positioning and Handling My Child handout

Adaptive equipment for demonstration:

- rolls and bolsters
- wedges
- prone board
- prone stander
- mats
- instant camera

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RESOURCES

Finnie, N. R. 1975. *Handling the young cerebral palsied child at home.* New York: E. P. Dutton.

Hanson, M. J., and S. R. Harris. 1986. *Teaching the young child with motor delays.* Austin, TX: Pro-Ed.

Klein, M. D. 1987. *Developmental position stickers.* Tucson, AZ: Therapy Skill Builders, a division of Communication Skill Builders.

PURPOSE

For young children with severe disabilities, proper positioning plays an extremely important role in increasing the child's general comfort and ability to take in information and develop relationships with others. Improper positioning and handling may increase muscle tone and decrease the child's ability to relax. This session is designed to help families recognize the role of positioning and handling in promoting relaxation.

STRATEGIES

The physical therapist or the occupational therapist should present general guidelines for positioning and handling and help parents adapt these guidelines for their individual children. Parents should learn the following guidelines for positioning and handling:

1. Use key points of control when handling or positioning the child (points near the center of the body, head and neck, shoulder girdle, and hips).
2. Try to maintain body symmetry when handling or positioning the child. Symmetry means that one side of the body looks like the other.
3. Try to bring the hands together on the baby's midline.
4. Use the minimum support needed to position or handle the child to force the child to use as much muscle control as possible.

After going over general guidelines, help each family develop appropriate positions for

a. carrying their child.

b. sitting.

c. lying.

d. feeding.

Give each family a copy of Positioning and Handling My Child. Have them find appropriate position stickers (Klein 1987) to illustrate the recommended positions and place them on the handout, or sketch the positions on the handout. Guide parents in placing their child in the recommended positions. Take instant photographs of the parent and child in these positions. A handout with spaces for mounting the photos is provided on page 220/221, or use a sheet of blank paper.

Lesson 2: Massage

MATERIALS NEEDED

Massage: Getting Ready handout

Massage handout

Massage Journal handout

soft, washable pad or towel

natural oils or lotion

tapes of soft music if desired

manual from an infant massage program

RESOURCES

Speirer, J., M. Garty, K. Miller, and B. Martinez, (n.d.) *Infant massage for developmentally delayed babies.* Denver, CO: United Cerebral Palsy Center. Available from
United Cerebral Palsy Center of Denver
2727 Columbine St.
Denver, CO 80205.

LeBoyer, F. 1977. *Loving hands.* London: William Collins and Sons.

Walker, P. 1988. *The book of baby massage.* New York: Simon & Schuster.

PURPOSE

Parents and caregivers will learn infant massage and implement a massage program to promote relaxation.

The mothers and the infant development team of United Cerebral Palsy Center of Denver reported the following positive changes after giving massage to children:

1. Calms cranky infants
2. Stimulates active voluntary movement in hypotonic babies
3. Promotes eye contact *leading to* social and emotional improvement

4. Makes infants more aware of the environment
5. Reduces hyperactive motions and relaxes the baby, lowering hypertonic muscle tone
6. Improves range of motion
7. Normalizes tone
8. Stimulates vocalization
9. Stimulates crying, then sleep in some babies, which is seen as a release of tension
10. Increases circulation

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11. Encourages parent-infant communication
12. Normalizes facial tone

STRATEGIES

Use one or all of the listed resources, together with the parent handouts, as training tools to teach caregivers massage techniques, either as a group in a topical workshop, or individually in a home visit. Caregivers should learn and follow these massage guidelines.

1. Be sure your massage program has been reviewed by a physical or occupational therapist to determine that all the massage techniques are appropriate for your child. Have the therapist delete inappropriate techniques and suggest positions that will aid in normalizing tone.
2. Explore with the therapist the kind of touch that your child prefers. Some babies prefer light pressure, while others enjoy deep pressure.
3. Prepare the environment for massage. Arrange soft, washable padding under the baby.
4. Prepare yourself to give the massage. Relax, play music, have a cup of tea, whatever helps you to center and feel good.
5. Choose a quiet time: before naptime, bedtime, or developmental activities.
6. Use oil (or lotion) during massage, and warm it in your hands before rubbing it on the baby's skin. Natural oils (such as almond, apricot kernel, or vegetable) are preferable.
7. Use the massage as a time for nonverbal and verbal communication. Make eye contact. Tell your baby how special she or he is. Name body parts as the massage proceeds.
8. Schedule the massage for the same time each day to help your child develop a daily routine.
9. Keep a massage journal on your child to document likes and dislikes (parent handout provided). A journal is very helpful for keeping up on each child's massage program.

Note: If classroom-based instruction is a component of the early intervention program, we strongly recommend that massage be built into the daily classroom routine to normalize muscle tone, to improve communication and comfort, and to add to the daily routine. Staff members can learn and practice massage techniques as they are incorporated into the daily schedule. We have observed powerful bonding effects from daily massages, and therefore suggest that interventionists massage daily those children with whom they have difficulty. The massage can serve as an important vehicle for strengthening child-caregiver relationships.

Lesson 3: Rhythmic Activities

MATERIALS NEEDED
Moving in Rhythm handout
rocking chair
hammock suspended from ceiling hook
rocking infant seat
infant swing

PURPOSE
Many babies find rhythmic activities comforting and relaxing. Some will even rock or pat themselves to relax. Parents and caregivers can participate with children in rhythmic activities to promote relaxation in both parties.

STRATEGIES
Discuss each of the activities described in Moving in Rhythm.

1. Demonstrate each technique on a child.
2. Invite parents to identify the strategies they think would be helpful with their child.
3. Brainstorm ways to obtain necessary equipment, including borrowing and bartering.

Lesson 4: Musical Activities

MATERIALS NEEDED
Our Favorite Music handout
Moving to Music handout
radio, tape player, record player, or compact disc player
records, discs, or tapes of various types of music
Activity Programs for Body Awareness, Contact, and Communication contains cassette tapes and an instructor's manual for movement activities. It is available from
Therapy Skill Builders
3830 E. Bellevue
P.O. Box 42050
Tucson, AZ 85733
(602) 323-7500

PURPOSE
Movement to music can promote body awareness and communication. Music is also relaxing to both caregivers and children and so can provide a backdrop for activities that are pleasant for both adults and children.

STRATEGIES
Help parents and children identify their musical preferences using the Our Favorite Music handout. Discuss with parents the clues to determining the child's musical preferences that are evident in facial expression, muscle tone, or activity level. Discuss how some music might promote a bright, alert state while other types may

promote relaxation. Identifying music for both of those purposes is helpful.

Prepare a tape with samples of distinctive musical styles. Include a sample of New Age music, a blend of contemporary jazz and classical music that many babies find relaxing. Include also rock music with a strong bass beat (often relaxing to premature infants). Ask parents about their own musical preferences and include favorite songs, singles, groups, or styles on the tape. Play these brief musical segments and watch the child's responses.

Once a particular tape or record has been identified as comforting and relaxing, incorporate it into the child's routine as a cue that means, "Now it is time to relax." Similarly, music that promotes a bright, alert state should be used daily to mark a period of active play and learning.

Music can provide the background against which to develop other skills as well. Use the Moving to Music handout to help parents and children practice moving to music together. Social, motor, and communication skills can all be facilitated by using a special piece of music with movements choreographed to it. Repeat the activity daily, so the child becomes familiar with the music and the motions that go along with it. Select a short piece of simple music, possibly a children's tape. Help the child perform motor activities to accompany particular portions of the music—such as clapping hands, stomping feet, or rocking. With daily repetition, the child will begin to recognize the sequence of movements and associate specific movements with portions of music. We recommend *Body Awareness, Contact, and Communication* (Knill and Knill 1987) for this purpose. Lead the parents and children through the demonstration tape of this program, moving with them to the music.

Lesson 5: Self-Calming

MATERIALS NEEDED

Self-Calming handout

materials for self-calming demonstrations:

- geometric poster for visual calming
- tape of white noise

PURPOSE

Babies who are chronically fussing, crying, and out of control are very difficult to be around for any length of time. Constant crying and need for attention is very stressful for parents and other caregivers. Finding effective ways to soothe children is important, but even more important is helping children learn to calm themselves and stay in control. As babies learn to calm themselves, the adult-child relationship can become more fulfilling. (Other techniques for managing and comforting crying are presented in the following chapter.)

STRATEGIES Using the Self-Calming handout, introduce the idea of babies learning to self-calm to parents. Point out that self-calming is a skill the baby has to learn with the help of caregivers. Like any skill, it must be practiced. The benefits of the baby developing self-calming ability are clear for both baby and parents: The child will have more time and energy for positive activities if less time is spent crying and fussing, and parenting will be less stressful.

Introduce and describe each of the following self-calming techniques. Have parents identify self-calming behaviors they have observed in their children and which ones they think hold promise for each child.

- sucking
- visual stimulation
- body position
- movement
- white noise

Provide guided practice in stabilizing the child's body in a preferred position. Provide practice also in bringing the child's arms and hands together at midline when the child seems agitated and out of control. Ask parents to keep notes for a week about the effectiveness of self-calming strategies.

Data Collection Strategies

These data collection strategies are recommended for evaluating progress in relaxation:

1. Use the Massage Journal to monitor the child's responses to the daily massage.
2. To evaluate the child's ability to self-calm, ask family members or classroom staff to tally (on a daily basis) the frequency with which they observe the self-calming techniques listed on the Observation of Self-Calming Techniques chart.
3. Ask parents to rate the child's ability to self-calm at one-month intervals using the Self-Calming Rating Scale.

Observation of Self-Calming Techniques

Child's Name:	Date:
Length and Context of Observation:	

Technique	*Day*						
	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
sucking							
visual attention							
favorite body position							
stabilizing movement							
white noise							
other:							

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Self-Calming Rating Scale

Child's Name: Date:

Circle the number that best describes how your baby self-calms.

1 = Don't agree 5 = Agree strongly

My child is very fussy and seems out of control when crying.

1 2 3 4 5

My child is often fussy, but I have observed a few attempts to self-calm.

1 2 3 4 5

My child is usually successful in self-calming.

1 2 3 4 5

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Positioning and Handling My Child

The child who is positioned and handled properly throughout the day is more comfortable, is less likely to develop further physical problems, and will learn and communicate better. Proper positioning and handling will help your child to function more efficiently and feel more stable and secure. This handout will remind you of positions that help your child relax and learn.

INSTRUCTIONS

1. Review recommended positions for carrying, sitting, standing, and lying with your child's therapist. Place stickers or drawings that show these positions here:

Carrying Sitting Standing Lying

2. Practice positioning your child and pose for demonstration pictures. Place the pictures on the second handout.
3. Post these pictures where you can see them every day to remind you of the best ways to position and handle your child.
4. Set up a date with your therapist to go over these positions and talk about how they are working.

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Colocando y Guiando a mi Bebé

El bebé colocado y guiado bien durante el día está más contento y menos propenso a desarrollar otros problemas físicos. También aprende a comunicarse mejor. El colocamiento y el tratamiento apropiado ayudará a que su bebé actue más eficazmente y se sienta más estable y seguro. Esta hoja informativa le indica posiciones que ayudan a su bebé a relajarse y aprender.

INSTRUCCIONES

1. Revise con el terapista las posiciones recomendadas para cargar, sentarse, pararse y acostarse con su bebé. Ponga etiquetas engomadas o dibujos que muestran estas posiciones aquí:

Cargado | Sentado | Parado | Acostado

2. Practique como colocar a su bebé y colóquelo en cierta postura para tomar fotografías. Ponga las fotografías en la segunda página.
3. Ponga estas fotografías donde Ud. pueda verlas todos los días para que se acuerde de las mejores maneras de colocar y manejar a su bebé.
4. Arregle una cita con su terapista para repasar las posiciones y hablar acerca de como trabajan.

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Massage: Getting Ready

Why use massage?

Daily massage will help your child relax and communicate more. It will help you and your child feel close to each other. Finally, it will improve your child's circulation.

Review the massage program with your child's therapist.

List here any advice your therapist gives you about massaging your child:

_____

_____

_____

_____

_____

_____

What you will need

soft, washable pad or towel

natural oil (almond, apricot kernel, or vegetable) or lotion

tapes of soft, relaxing music

infant massage manual (See if you can borrow one from your child's early intervention program until you are familiar with the routine.)

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When to massage

1. If your child has trouble falling asleep at night, try making massage part of the bedtime routine.
2. If your child is slow to wake up, try massage in the morning or after a nap before you do activities that your child needs to be alert for.
3. If you notice your child is fussy at some time of the day, try massage at that time or a little bit earlier.
4. If your child cries when you do range-of-motion exercises, try giving a massage first.
5. Give a massage at the same time each day to help your child learn a daily routine.

Remember these tips

- Prepare the area for massage: Turn on music, arrange padding, adjust the temperature.
- Prepare yourself for the massage: Relax and get centered.
- Choose the best time for you and your child.
- Remember the specific suggestions your therapist gave you for your child. Look over the list on the first page of this handout.
- Use oil or lotion. (Careful—your baby may get slippery!)
- Make eye contact and talk to your child as you massage.
- Relax along with your child.

Note what your child did or didn't like about each massage in a massage journal. Share this information with other caregivers and therapists. It will help them get to know your child faster and help make the massages more successful.

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Masaje: Preparación

¿Porqué dar masaje?

Masaje diario ayudará a su bebé a relajarse y a ser más comunicativo. Acercará más a Ud. y a su bebé. Por fin, mejorará la circulación del bebé.

Revise el programa de masaje con el terapista de su bebé.

Haga una lista de los consejos que le da el terapista sobre como dar masaje al niño.

_____

_____

_____

_____

_____

_____

Lo que necesitará

una colchoneta o toalla suave y lavable

aceite natural (de almendra, semilla de albaricoque o vegetal) o loción

cintas de música suave y relajante

manual de masaje infantil (Investigue si puede pedir uno prestado del programa de intervención temprana de su bebé hasta que se familiarize con la rutina.)

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Cuando puede dar el masaje

1. Si su bebé batalla para quedarse dormido en la noche, incluya el masaje en los preparativos para dormir.
2. Si su bebé se tarda en despertar, déle masaje en la mañana o después de la siesta antes de hacer las actividades para las cuales debe estar alerta.
3. Si nota que su bebé se inquieta a cierta hora del día, trate de darle masaje a esa hora o un poco antes.
4. Si su bebé llora cuando hace los ejercicios con movimientos largos, trate de darle masaje primero.
5. Déle un masaje a la misma hora todos los días para ayudarlo a acostumbrarse a una rutina diaria.

Sugerencias para recordar

- Prepare el lugar para el masaje: Ponga la música, arregle la colchoneta, ajuste la temperatura.
- Prepárese para el masaje: Relájese y póngase en posición.
- Escoja la mejor hora para Ud. y su bebé.
- Acuérdese de las sugerencias específicas que les dio el terapista para su bebé. Revise la lista en la primera página.
- Use aceite o loción. (Tenga cuidado porque puede resbalársele su bebé.)
- Mientras le da masaje a su bebé, mírelo a los ojos y charle.
- Relájese junto con su bebé.

Apunte lo que le gustó o no le gustó de cada masaje en un diario. Comparta esta información con otros trabajadores o terapistas. Les ayudará a conocer a su bebé más pronto y ayundará a que el masaje dé más beneficio.

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Massage

1. Undress your baby down to the diaper and place face up on a mat or soft towel. Play relaxing music. Rub oil or lotion in your hands to warm it. Now begin the massage.
2. *Legs:* Begin with the legs. Hold a foot with one hand and rub up toward the hip with the other hand. Alternate hands. Repeat on the other leg.
3. Do circular thumb strokes on the muscled area of the legs, from the foot up into the buttock.
4. *Feet:* Stroke the sole of each foot with your thumb. Stroke the top of each foot with your thumb. Rub each toe individually.
5. *Chest:* Do a circular stroke with two hands from the stomach up through the chest, across the shoulders and down the arms.
6. *Stomach:* Rub the stomach in a circular motion with both hands.
7. Bend each leg up toward the stomach and hold. Do not hold for more than five counts because it may be hard for your baby to breath in this position.
8. *Forehead:* Do circular thumb strokes at the headache points on the child's temples. Smooth the upper lip and lower lip. Do thumb circles on the jaw muscle. Caress the forehead, the backs of the ears, and the chin.
9. *Arms and Hands:* Push your hand toward the shoulder firmly, rub back toward the hand lightly. Massage each finger individually. Smooth the back and front of the whole hand.
10. *Back:* Place the baby on its stomach. Do circular thumb strokes on either side of the spine and into the seat muscles. Make smooth strokes from the shoulder to the buttock. Make smooth strokes from the shoulder to the ankle.

Remember: Throughout the massage . . .

- Talk to your child.
- Look into your child's eyes.
- Smile.

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Masaje

1. Desvista a su bebé dejándole solamente el pañal y acuéstelo, boca arriba, sobre una colchoneta o toalla suave. Ponga música relajante. Frote aceite o loción en las manos para calientarse. Ahora empieze el masaje.
2. *Piernas:* Comienze con las piernas. Tome un pie con una mano y con la otra déle masaje hacia arriba hasta la cadera. Alterne las manos. Repita el proceso en la otra pierna.
3. Haga círculos con el pulgar en el área muscular de las piernas, desde el pie hasta la nalga.
4. *Pies:* Sobe la planta de cada pie con su pulgar. Sobe la parte de arriba del pie con el pulgar. Sobe cada dedito por separado.
5. *Pecho:* Con las dos manos, haga movimientos circulares desde el estómago hasta el pecho, hacia los hombros y bajando por los brazos.
6. *Estómago:* Frote el estómago con una moción circular de las manos.
7. Doble cada pierna hacia el estómago y mantenga esa posición contando hasta cinco pero no más, porque en esta posición puede obstruir la respiración del bebé.
8. *Frente:* Con los pulgares haga movimientos circulares sobre las sienes del bebé. Sobe suavemente cada labio del niño. Hage círculos con los pulgares en el músculo de la quijada. Sóbele la frente, atrás de las orejas y la barba.
9. *Brazos:* Ponga la mano firmamente en el hombro del bebé y sóbele suavemente hacia atrás y hacia la mano. Déle masaje a cada dedito por separado. Sóbele los dos lados de toda la mano.
10. *Espalda:* Ponga al bebé boca abajo. Haga movimientos circulares con los dedos gordos por los lados de la espina hasta las sentaderas. Sóbele suavemente desde los hombros hasta las nalgas. Sóbele suavemente desde el hombro hasta el tobillo.

Recordatorio: Durante el masaje . . .

- Hable con su niño
- Mírele a los ojos
- Sonríase con él

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Massage Journal

Child's Name:			
Date	Time	Observations	
		Likes	Dislikes

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Diario para el Masaje

Nombre del bebé:			
Fecha	Hora	Observaciones	
		Gustos	Aversiones

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Moving in Rhythm

Many babies and young children find rhythmic activities comforting and relaxing. Some rhythmic activities can be done together and are relaxing for both you and your child. Others can free you from having to hold your child continually.

Explore these rhythmic activities when your child is fussy or irritable:

1. *Rock in a rocking chair.* Explore different ways of holding your child and different speeds of rocking. Consider playing music, singing, or reading a book while rocking.

2. *Swing in a hammock.* You can swing with your child or hang both ends of a hammock from a single ceiling hook and swing your child alone (cocoon style). Never leave your child unattended in a hammock.

   Caution: Swinging may promote seizure activity in some children. Check with your child's doctor and therapist about the advisability of this activity for your child.

3. *Rocking infant seat.* Try rocking your child in a rounded or rocking infant seat on the floor. You can do this easily with a hand or foot while you relax and watch TV or read a book.

4. *Infant swing.* Many babies enjoy swinging in an infant swing. An added bonus is the rhythmic clicking noise some swings make. This noise often lulls babies to sleep.

5. *Slow stroking or patting.* Instead of always picking your child up, try stroking the head or an arm or leg, or pat the back gently. Continue until your child relaxes.

Keep track of all the relaxation strategies that are effective and share them with other caregivers such as classroom staff and babysitters.

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Movimientos con Ritmo

A muchos bebés y niños les gustan las actividades rítmicas porque son confortadores y relajantes. Ud. también puede hacer actividades rítmicas y ambos pueden relajarse. Durante otras actividades Ud. no tendrá que cargar al bebé todo el tiempo.

Haga estas actividades rítmicas cuando su bebé esté inquieto o de mal humor.

1. *Mecerse en una mecedora.* Encuentre la mejor manera de cargar a su bebé y la mejor velocidad para mecerse. Puede tocar música, cantar o leer un libro mientras se mecen.

2. *Mecerse en una hamaca.* Puede mecerse con su bebé o puede colgar las dos orillas de la hamaca desde el techo para columpiar al niño solo (como un capullo). Sin embargo, nunca deje solo en la hamaca al bebé.

   Cuidado: Mecerse pueda causar ataques en algunos niños. Preguntele a su médico o terapista si debería hacer esta actividad con su bebé.

3. *Mecedora infantil.* Siente al bebé en una mecedora infantil y puede mecerlo con la mano o el pie desde donde Ud. está sentada leyendo o viendo la televisión.

4. *Columpio infantil.* A muchos bebés les gusta columpiarse en un columpio infantil. Algo especial sería el ruido que hacen algunos columpios. Este ruido arrulla a los bebés.

5. *Caricias y palmaditas.* En vez de levantar siempre a su bebé trate de acariciarle la cabeza, un brazito o una piernita o déle palmaditas suaves en la espalda. Continue hasta que su niño se relaje.

Esté al tanto de todas las estrategias para relajarse que son eficazes para su bebé y compártalas con otras personas interesadas como los empleados de un salón de clase o niñeras.

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Our Favorite Music

Music can be relaxing and enjoyable for both adults and children. Listening to music together is a pleasant activity for the whole family. In this activity, you will identify music that both you and your child find enjoyable.

Think now about your own favorite music. Check your favorite types of music and list your favorite singers and songs:

Type of Music		Favorite Singers/Songs
Top 40		
rock 'n' roll		
rhythm and blues		
country/western		
gospel		
Broadway/show tunes		
folk		
hymns		
classical		
jazz		
New Age		
other		

Now look over your list and decide which of your favorites your baby might also enjoy—for listening, for relaxing, for soothing, for dancing, and for moving to music.

If you haven't checked rock 'n' roll or New Age music, you might consider them. The steady bass beat of rock 'n' roll is comforting and soothing to some young children. New Age music, a blend of contemporary jazz and classical, can be relaxing for both children and adults.

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Make a tape of some of your favorite types of music and observe your baby's response to the various selections:

- What changes do you see in facial expression?
- In muscle tone?
- In activity level?
- What music seems to make your child alert?
- What music seems to help your child relax?
- What music do both you and your child enjoy?

Think of times of day when the music you and your child enjoy would help cue your child about what's going to happen next. Examples include a relaxing song before naptime or a lively song before exercising. List here three times during the day when music could add to the experience:

Activity	The Music We Will Use
1.	
2.	
3.	

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Nuestra Música Favorita

La música puede ser relajante y apreciada por los adultos y niños también. Una actividad que es placentera para toda la familia es escuchar música. En esta actividad Ud. identificará la música que es placentera tanto para Ud. como para su bebé.

Piense en su música favorita. Marque los tipos de música que son sus favoritos y haga una lista de sus cantantes y canciones preferidas:

Tipo de Música		Cantantes/Canciones Favoritas
40 favoritas		
rock		
rítmica y blues		
ranchera		
gospel (música evangelica)		
melodias de Broadway		
folklórica		
himnos		
música clásica		
jazz		
"New Age"		
otra		

Revise la lista y decida cuales de sus piezas favoritas le gustarían a su bebé—para escuchar, relajarse, calmarse, bailar y para moverse al compás.

Si no ha marcado la música *rock* y *"New Age"* podría probarlas. El compás grave y constante de *rock* es confortante y calmante para algunos niños. La música *"New Age"* es una combinación de jazz contemporáneo y música clásica que puede ser agradable tanto para los niños como para los adultos.

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Haga una cinta de sus tipos favoritos de música y observe como responde su bebé a varias selecciones:

- ¿Qué cambios nota en las expresiones faciales?
- ¿En la tensión de los músculos?
- ¿En el nivel de actividad?
- ¿Qué música parece alertar al bebé?
- ¿Qué música parece relajar al bebé?
- ¿Qué música les gusta tanto a Ud. como a su bebé?

Piense en la hora cuando la música que les gusta escuchar indique a su bebé la actividad que sigue. Ejemplos incluyen una canción relajante antes de la siesta o una animada antes de hacer ejercicio. Escriba aquí las tres veces durante el día en que la música podría enriquecer a la actividad:

Actividad	La Música que Usaremos
1.	
2.	
3.	

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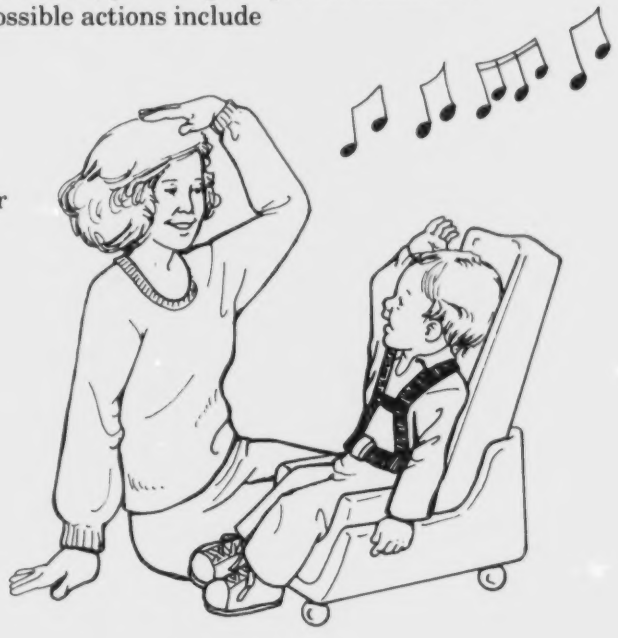
Moving to Music

Music can help children learn social skills, motor skills, and communication. Put together movements with music, planning simple movements to coincide with parts of the song. Possible actions include

- clapping your hands
- patting your head
- tapping your feet together
- rubbing your hands together
- rolling
- patting your tummy
- rocking
- swinging your arms

Look for signs that your child is trying to participate or recognizes the motion or the music. If your child cannot do the motions without help, provide gentle physical guidance or do the motion together. For example, sit on the floor with your child in your lap and rock together to the music.

While moving to the music, do these things:

- Name what you are doing. Example: "We are clapping our hands."
- Do the movement with your child.
- Make eye contact with your child and smile.

List a song you might use with your child to increase body awareness and communication:

_____

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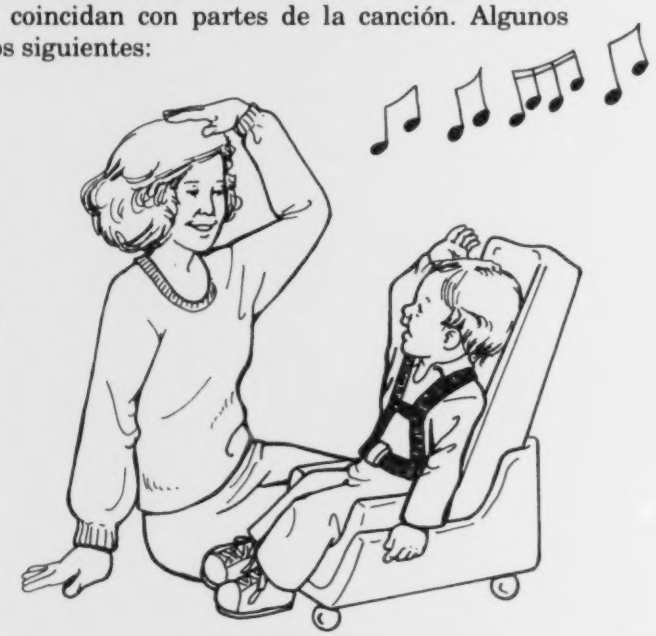
Moviéndose al Compás de la Música

La música puede ayudar a los pequeños a aprender destrezas sociales, a mover sus músculos y a comunicar. Haga movimientos al compás de la música, movimientos que coincidan con partes de la canción. Algunos movimientos pueden ser los siguientes:

- palmear las manos
- palmear la cabeza
- zapatear
- apretar las manos
- rodar
- palmear el estómago
- mecerse
- agitar los brazos

Fíjese si su bebé da señas de querer participar o si reconozca los movimientos o la música. Si su bebé no puede hacer los movimientos sin ayuda, ayúdelo físicamente o hagan los movimientos juntos. Por ejemplo, siéntese en el piso con su bebé en su regazo para mecerse al compás de la música.

Al moverse con la música, haga lo siguiente:

- Diga lo que está haciendo. Ejemplo: "Estamos palmeando las manos."
- Hage los movimientos con su bebé.
- Mírele a los ojos y sonríase.

Escriba el título de una canción que pueda usar para aumentar el interés y la comunicación del bebé.

_____

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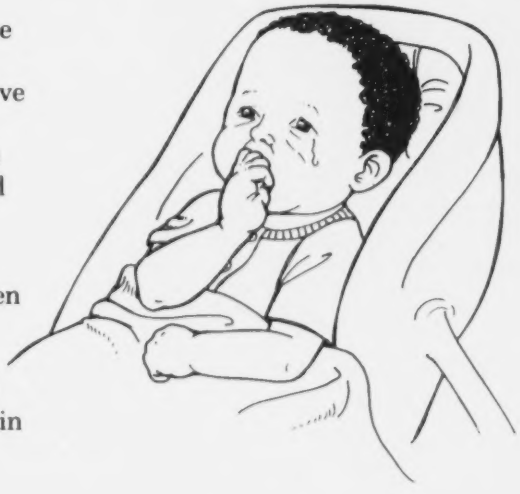
Self-Calming

When a baby is upset, crying, and out of control, adults feel stressed and anxious. Finding effective ways to soothe children is important, but even more important is helping them learn to calm themselves and stay in control.

Here are some ways that many babies calm themselves, along with ways you can help your child learn these techniques:

1. *Sucking a hand, fist, or fingers.* The advantage over a pacifier is once the child learns to find a hand, it's always there, and an adult won't have to come to the rescue by finding a dropped pacifier. When your child is upset, gently guide one hand toward the mouth.



2. *Vision.* Many babies stop crying when they gaze at something interesting within their sight. Place bright, interesting pictures and toys where your child can see them while lying in the crib. Look for bold geometric designs in black and white.

3. *Body position.* Some infants seem to prefer a certain body position. Look for a preferred position and place your child in that position when upset or agitated.

4. *Movement.* Some babies get caught up in uncontrollable arm and leg movements when they are upset. Try placing your child in the crib with one foot stabilized against the side of the crib.

   Another technique is to bring the child's hands and arms together in front of the body when involuntary movement has the child out of control.

5. *White noise.* Repetitive, rhythmic background noise may help some children calm themselves. Turn on a source of white noise—fan, air conditioner, vacuum cleaner, clothes dryer, or the bass beat of rock music—and observe your child's reaction.

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What self-calming strategies have you observed your child to use?

_____ sucking

_____ vision (describe picture used)_____

_____ body position (describe)_____

_____ stabilizing movement

_____ white noise

Which of the strategies do you think you could encourage?

_____ sucking

_____ vision

_____ body position

_____ stabilizing movement

_____ white noise

Reminder: As you teach self-calming skills, you need to give your child a chance to learn to self-calm. Therefore, don't rush to pick up a crying child every time. Wait to see if your child really needs your help before intervening.

Don't leave a child alone to cry for a long time, however. Every five minutes or so, provide some brief, soothing attention and show the child again the self-calming strategy that you think will be helpful.

Don't . . .

- ignore crying.
- rush to pick up the child at the first hint of crying.

Do . . .

- pay attention to the child.
- provide comfort every few minutes.
- show the child how to self-calm.

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Calmarse

Cuando un bebé se encuentra trastornado, llorando y fuera de control, los adultos se sienten bajo tensíon y con ansiedad. Es importante hallar modos eficazes para calmar a los niños, pero es más importante ayudarles a calmarse solos y mantenerse controlados.

Aquí están algunas maneras con que los bebés pueden calmarse y el modo de ayudarles para aprender estas habilidades:

1. *Mamarse la mano, el puño o los dedos.* La ventaja sobre una chupeta es que cuando el bebé encuentra su mano, siempre estará disponible y el adulto no tendrá que venir a buscar la chupeta y ponérsela en la boca. Cuando su bebé está llorando, suavemente póngale la manita junto a la boca.

2. *Vista.* Muchos bebés dejan de llorar cuando miran algo interesante. Ponga pinturas y juguetes llamativos e interesantes donde su bebé los pueda ver acostado en su cuna. Trate de conseguir diseños geométricos en blanco y negro.

3. *Posición del cuerpo.* Algunos bebés parecen preferir cierta posición. Investigue cual es y acuéstelo en la posición preferida cuando está molestado o agitado.

4. *Movimiento.* Unos bebés agitan los brazos y las piernas de una manera incontrolable cuando están molestados. Ponga a su bebé en la cuna con un pie firmemente contra un lado de la cuna.

   Otra técnica es juntar los brazos y las manos enfrente del cuerpecito del bebé cuando empieza a tener movimientos involuntarios sin control.

5. *Ruido "blanco."* Ruido rítmico y repetitivo puede calmar a algunos niños. Ponga un abanico, un aire acondicionador, una aspiradora o una secadora de ropa o el ritmo bajo de música *rock*—y observe la reacción de su bebé.

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¿Qué estrategias ha observado Ud. que usa su bebé para calmarse?

_____ mamar

_____ vista (describa la pintura)_____

_____ posición del cuerpo (descríbala)_____

_____ movimiento estabilizador

_____ ruido "blanco"

¿Cuáles estrategias recomende Ud.?

_____ mamar

_____ vista

_____ posición del cuerpo

_____ movimiento estabilizador

_____ ruido "blanco"

Recordatorio: Cuando le enseñe destrezas para calmarse a su bebé, déle suficiente oportunidad para hacerlo. No corra a levantarlo cada vez que llore. Asegúrese que realmente la necesita antes de intervenir.

Sin embargo, no deje llorar al niño por mucho tiempo. Cada cinco minutos, mírelo y cariñosamente muéstrele la estrategia otra vez que Ud. cree que le ayude.

No . . .

- desconoce el llanto del bebé.
- corra a levantarlo cuando empieze a llorar.

Sí . . .

- ponga atención a su bebé.
- proporciónele consuelo cada cuantos minutos.
- enséñele a calmarse solo.

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Managing and Comforting Crying*

Value

Prolonged, frequent, and intense crying, particularly when the child is difficult to soothe, can be a detriment both to the young child and to the persons who provide care. Because babies and young children with handicapping conditions may cry more frequently and in different ways from their nondisabled peers, there is a great need to develop strategies for dealing with crying in the early intervention program. Interventions to comfort and manage crying are valuable to parents because they provide a sense of efficacy in handling a challenging situation. They are helpful to children because they increase the probability that the child's communication will be read and responded to.

This section provides parents and other caregivers with techniques for understanding the frequency of the child's crying, the circumstances associated with the child's crying, and what the crying might mean. Strategies to manage or comfort crying are taught. Additionally, this section describes respite and relaxation techniques parents and other caregivers can use to help them cope with crying when soothability is poor.

Sample IFSP Outcomes: Managing and Comforting Crying

Outcome #1

Parents will develop techniques for observing and understanding their child's crying.

Outcome #2

The child's environment, at home and at school, will be modified to contribute to the reduction and management of crying.

Outcome #3

Parents will explore the meaning of the child's crying and will learn techniques for providing comfort and reducing crying.

Outcome #4

The child will increase his/her ability to receive comfort and will therefore cry less and be more alert.

Outcome #5

The adults who care for a child who cries intensely and frequently will learn coping strategies for dealing with this stressful situation.

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*Portions of this section are adapted from Calhoun and Rose (1988).

Theoretical Perspective

Crying is an important behavior in young children. It has been identified as the most effective attention-getter that infants have open to them; crying also has been identified as an aversive, distressing experience for the adults who care for the child. Parents of young children in an early intervention program identified crying as the key behavior that is most stressful, frustrating, and likely to cause them to wish they were somewhere else (Rose, Spooner, and Calhoun 1988).

The crying of babies who are disabled. Managing and comforting crying is an especially important issue for families who have young children with special needs because crying is more common in children with physical and mental disabilities than in their nondisabled age peers (Bax 1985), and the cry of babies who are disabled may be different. In a review of 25 years of Scandinavian research into crying, Wasz-Hockert, Michelsson, and Lind (1985) described variations in pitch, frequency, and melody associated with the cry of infants with chromosomal abnormalities, endocrine disturbances, perinatal asphyxia, and diseases of the central nervous system. They concluded that there are identifiable differences associated with these problems. Darbyshire (1984) cataloged the differences in crying associated with certain diseases and disorders: the shrill cry of meningitis, the croaking cry of hypothyroidism, the high-pitched cry associated with neurological impairment, the "cut short" cry of the child with cardiac difficulty. The frequency of crying, along with atypical crying sounds, may contribute greatly to the parents' sense of crying as an aversive experience.

Soothability is another important concern. In studies of infant temperament, about 10 percent of babies are described as "difficult" or irritable, not easy to soothe (Thomas and Chess 1980). This group is characterized by a conglomeration of behaviors that include poor sleeping, awkward feeding sessions, and extensive crying. These infants have been further described as active, rhythmical, negative in mood, and intense in their reactions. While most babies who fall into this "difficult" group are not disabled, the pattern of irritability is descriptive of many babies and young children with neurological impairment (Langley 1980).

Adult reactions to crying. Crying can be highly challenging to adults with responsibility for young children. Studies that systematically investigated the stress effects on adults of infants' crying found that speed in perceptual tasks is impaired when infant crying is heard (Kilpatrick and Kirkland 1977). Unsuccessful control over infant crying can impair activity on a subsequent

task (Kevill and Kirkland 1979), and high physiological arousal is observed when adults view a crying infant (Frodi et al. 1978). In a study of adjustment to parenthood, Boukydis (1985) found that the baby's crying is the item most highly correlated (of fourteen items) with the degree of adjustment difficulty. Moreover, irritable babies who seem to cry for emotional reasons —to get attention or to manipulate parents—elicit more reported anger and irritation from adults than do babies who are perceived as crying due to routine physical discomfort—hunger or fatigue, for example. Irritable babies are perceived as more spoiled than easy babies (Lounsbury and Bates 1982).

The frustration that adults feel when it is difficult to soothe a crying baby can be explained in part by the theory of learned helplessness (Seligman 1975), which can be summarized as a belief that doing anything is a waste of time because nothing seems to work. Parents may be tempted to give up their attempts to soothe and comfort crying because there is no apparent correspondence between soothing attempts and the baby's becoming quieter and more relaxed (Kirkland, Deane, and Brennan 1983). Helping parents feel that they can do something, that they can provide effective comfort, is an important step in strengthening the social bonds between them and their children.

What crying means. Even though crying is unpleasant to adults, it is important to recognize that crying is a major communication tool. Crying has been described as the most effective way of eliciting attention from a parent or caregiver (Darbyshire 1985). It can elicit comforting responses (Bell and Ainsworth 1972; Zeskind 1980) and, therefore, should be seen as essential to the baby's well-being.

There are many reasons why babies and young children cry. Darbyshire (1984) names these major ones:

- hunger/thirst
- cold
- being dressed/undressed/changed
- pain or discomfort
- overstimulation
- mistiming of events, such as feeding too quickly or too slowly; bathing when hungry; playing when tired
- fatigue

Personnel in early intervention programs might observe these additional causes of crying (Calhoun and Rose 1988):

- separation from parents or other caregivers
- discomfort from new procedures

- rough handling
- asking for a change of activity or attention
- chain reaction (if one child starts crying, others will, too)
- nonspecific irritability

The "good news" about crying, then, is that the child may indeed be communicating something important to parents and caregivers. As adults make the mental shift from viewing crying as an irritant to viewing crying as a message worth investigating, they will be better able to cope with the crying, to interpret what it means, and to respond to it appropriately.

Summary. Crying is a two-edged sword: It is very unpleasant for adults to hear, yet it is a baby's most effective attention-getter. Because babies and young children who are disabled may cry more frequently and in different ways from other children their age and may be more difficult to soothe, it is essential that crying be addressed in early intervention programs.

Helping parents manage and comfort crying can strengthen social reciprocity. The parent will feel efficacy in caregiving as the child responds to care. The child will feel efficacy in that this communication has been received and responded to. As prolonged and intense crying decreases, a stronger, more peaceful relationship between parents and children can be established.

Early Interventionists' Guide: Managing and Comforting Crying

Managing and comforting crying is presented in six lessons, corresponding to the six parent handouts that follow. These strategies are designed to be carried out by families with the help and support of the early intervention staff. They lend themselves well to small-group instruction during weekly one-hour meetings, with additional individual consultation during home visits. The series of strategies presented here can also be implemented in center-based programs if prolonged, frequent, and intense crying is a problem. Program staff should conduct the same series of interventions to help manage and comfort crying within the classroom.

Lesson 1: Observing Crying

MATERIALS NEEDED Cry Diary

PURPOSE By pinpointing the time of day and activities associated with crying, parents and other caregivers may begin to understand what the crying is communicating and to make adjustments in the daily routine that will soothe and comfort the child. Understanding crying is the first step toward feeling efficacy in managing crying.

STRATEGIES Distribute the Cry Diary to families.

1. Ask families to commit to keeping a Cry Diary for one week and to bring it back the following week for discussion.
2. Go over step-by-step directions for maintaining the diary.

3. Highlight these points:
   - Every time the baby cries, the parent should make a slash mark (/) on the chart.
   - Mark the 15-minute interval in which crying begins. If crying continues into the next interval, mark it also.
   - Because crying is frequently associated with feeding (hunger, new foods, need to burp, and so on), use a different mark (X) for crying that may be associated with feeding.
   - Encourage families to make brief notes about what's going on when the crying occurs on the back of the calendar page. They should also note what they do to provide comfort and how effective it is.
4. Ask parents to identify any roadblocks to keeping the diary for a week. Brainstorm solutions.
5. Let parents know that the questions raised in the diary (questions 7 and 8) will be discussed at the next session. They should be thinking about these questions but need not write down their answers.

Lesson 2: Checking It Out

MATERIALS NEEDED Completed Cry Diaries

When Does My Child Cry? handout

PURPOSE With consultation from program staff, parents will look for patterns in their child's crying and identify circumstances that seem to be associated with crying. During this session, participants will look closely again at the child's crying to verify their hypotheses.

STRATEGIES Review each completed Cry Diary with the parent(s). Visually inspect the diary for patterns or trends. In a small group, invite parents to exchange diaries and see whether they note any patterns in other diaries.

Go over the questions on the Cry Diary together:

- How often did your baby cry?
- Did crying occur more frequently on certain days of the week?
- Did your child often cry at certain times of the day?
- What activities seem to cause crying?
- What soothing activities seem to help? Which ones don't seem to help?
- Is your child easily comforted?

Based on responses to these questions, generate a list of situations that seem to be associated with the child's crying.

List the activities that seem to be associated with crying on the When Does My Child Cry? handout.

Explain the assignment for the next meeting: Keep a tally of how often the child cries during each of the listed activities. At the end of the week, inspect the tally to see whether certain activities do indeed seem to be associated with crying. Reflect on the six questions discussed during the session. They will help determine what communicative functions the crying may serve.

Lesson 3: Modifying the Environment

MATERIALS NEEDED

completed When Does My Child Cry? handout

Reducing Crying handout

pencil and paper

PURPOSE

Now that crying has begun to take on meaning and the child's patterns of crying have been identified, the next step is to learn interventions that will help manage and comfort crying. This session will focus on a general intervention: creating an environment that will minimize the aversive effects of crying and will, indeed, make crying less likely to occur.

STRATEGIES

Review the completed When Does My Child Cry? handout. Pay particular attention to the last question: "What have I learned about my child's crying?"

Distribute the Reducing Crying handout and go over each of the four ways to create an environment that will lessen crying and its effects. The following points should be underscored:

Avoid intense stimulation.

1. Invite parents to review their child's environment and mentally identify any possible "startlers": a loud telephone ringing, slamming doors, an intercom, intensely bright lights.
2. Brainstorm ways to eliminate or reduce these "startlers." Have parents practice approaching the child gently and calmly:
   - making eye contact
   - smiling
   - speaking softly
   - approaching from the front
   - using smooth, fluid movements

Establish a daily routine.

1. Have parents sketch out a typical daily schedule in their life with their child. Look for events that occur daily, such as feeding, bathing, dressing, naptime.
2. Brainstorm various cues—such as words, lights, music, rocking—that might help the baby predict what will happen next and thus make the day seem less stressful.
3. Go back over the outline of the daily schedule. Insert cues that might enhance the rhythm of the day.

Pick furniture that softens crying sounds.

1. Ask parents to consider whether wall, window, or floor coverings could help make the sound of crying less jarring.
2. Brainstorm ways to acquire such room softeners, considering borrowing and bartering as well as buying.

Add comforting objects to the environment.

1. Special furniture (such as a rocking chair or infant swing) and special toys (such as a teddy bear with a heartbeat) might make the environment a more comforting place.
2. Have the group explore ways to borrow or exchange such equipment for a short time to see if they reduce crying.
3. Close this session by asking parents to identify at least one way to modify their child's environment to lessen the occurrence and the effects of crying.

Lesson 4: Responding to Crying

MATERIALS NEEDED

How We Can Respond to Crying handout

Trying Out Strategies that Soothe and Comfort handout

demonstration materials:

rocking chair	white noise
infant swing	receiving blankets for swaddling
stopwatch	electronic toy with heartbeat
peaceful music	tapes of lullabies

PURPOSE

This session focuses on two key concepts (1) crying can mean different things that should be responded to in different ways; and (2) specific responses, including comforting strategies, can be effective in responding to different kinds of crying. Various responses to crying will be taught, based on the adult's understanding of what the crying means.

STRATEGIES Distribute the How We Can Respond to Crying handout.

1. Ask participants initially to cover up the right-hand side of the handout, and read through the left side together. This side lists reasons why a baby might cry. As the group reads through this list, ask the following questions:
   - What clues would suggest that your baby is crying for this reason?
   - What might be a reasonable response to this kind of crying?
2. Now have participants uncover the right-hand side of the handout and go through the recommended responses step by step. Provide demonstration and practice as appropriate.

   Demonstrate the following techniques with the help of a young child:

   - Have a child physically close without holding or carrying (so that your hands are free to do other things).
   - Soften your approach to the child by speaking more slowly and quietly, with gentle movement.
   - Reward the child for *not* crying. Catch the child between cries and touch, bathe, cuddle, or provide a treat. (A videotaped interaction could be helpful here.)
   - Provide noncontingent reinforcement when the child is working on a new routine or procedure. Using a stopwatch, time one-minute intervals to give parents an idea of how often they should attend to the child. Have parents practice making eye contact, saying encouraging words, and gently patting or stroking the child.
   - Rock the child 60 to 90 times a minute in a rocking chair. Have one person time one minute with the stopwatch while others count aloud. Practice this fast rocking both while holding a child vertically on one shoulder (for a bright, alert state) and while holding the child horizontally (to induce sleepiness) (Byrne and Horowitz 1981; Pederson 1975; Ter Vrugt and Pederson 1973).
   - Use "Grandma's two-step" (see handout).
   - Play lullabies, rhythmic tapes, and tapes of white noise and evaluate their potential to soothe a particular child.
   - Swaddle a young child in a receiving blanket.
   - Give long strokes down the baby's back, pressing firmly down both sides of the spine, from the neck to the base of the spine.

3. After practicing the various techniques, give each parent a note card on which one possible reason for crying is written (taken from the left side of the handout). Ask each group member to read what's on the card and ask the group to respond with helpful interventions for that particular kind of crying.
4. Remind the group that since babies do not have the words to tell us whether or not we've guessed right about the cause of their crying, we are operating by trial and error. We should make our best guess and give reasonable interventions a fair try. If the intervention is not successful in soothing the crying, however, we should move on and try another intervention. The detective work is ongoing; the child's behavior will let us know if we're on the right track.
5. Distribute the Trying Out Strategies that Soothe and Comfort handout. Ask participants to list on the top part of the sheet the comforting strategies they will try during the coming week. Explain how to complete the week-long Comfort Diary section of the handout at home. This diary should be brought back to the group at the following lesson.

Lesson 5: Providing Comfort

MATERIALS NEEDED

completed Trying Out Strategies that Soothe and Comfort handout

demonstration materials:

rocking chair	peaceful music
infant swing	white noise
stopwatch	tapes of lullabies
receiving blankets	electronic toy with heartbeat

PURPOSE

This session will allow parents to report on their success with various soothing techniques and to brainstorm other interventions if soothing remains elusive. Additionally, participants will have the opportunity for further practice with techniques for providing comfort.

STRATEGIES

Review the completed Comfort Diary with participants:

- What soothing/comforting techniques were tried?
- Which seemed most helpful to your child?
- What problems were encountered?
- What solutions for these problems can we think of?

Ask parents to select one particularly successful technique that they tried during the week and demonstrate it for the group. Provide opportunities for additional practice with any techniques that seem interesting or helpful. Ask parents to rate their overall progress in comforting crying.

Lesson 6: Coping with Crying

MATERIALS NEEDED Coping with Crying handout

PURPOSE In reality, parents will not always be successful at managing or comforting crying, and sometimes crying will drive them crazy. The techniques presented in this lesson will help adult caregivers manage these difficult times. The Coping with Crying handout offers step-by-step directions to help adults do two things (1) find temporary relief from the responsibility for caring for a crying child; and (2) reduce stress while caring for a crying child.

STRATEGIES Read through the handout together and practice the various strategies. Refer to the Early Involvement in the Community section of this manual to get ideas for finding respite services and sitters for longer breaks. Help participants think of people who might be available to provide very short breaks and write their names on the handout.

Have participants identify relaxing activities (ranging in time from five minutes to two hours) that they could do during their break from responsibility. Practice each of these "stress busters."

Data Collection Strategies

Three data-collection strategies are useful in evaluating progress in managing and comforting crying:

1. Use the Cry Diary as a pre-/post-measure of how much time a baby spends crying during a week. Ask parents to complete the week-long diary as the first step in the program. After they have received instruction in responding to and comforting crying, ask them to complete a similar diary and compare the results.

   If comforting crying is a goal in a center-based program, complete a similar diary for the school hours, both before and after intervention.

2. To evaluate the effectiveness of strategies to soothe and comfort, do the following: During a time identified as highly probable for crying, monitor the duration of periods of non-crying. Since the goal of soothing interventions is to increase the length of these periods, graphing quiet periods in minutes and seconds during 15-minute intervals will indicate the effectiveness of intervention.

3. As a social validation measure of the effectiveness of the interventions, ask parents (or classroom staff) to complete the following rating scale each week of the six-week instructional period.

Crying Rating Scale

Circle the number that best answers the following questions.

1	2	3	4	5
There is no difference in the amount of crying.		We might be making some progress, but I'm not sure.		I am definitely better able to manage my child's crying.

Circle the number that describes how much of a problem your child's crying is to you:

1	2	3	4	5
Crying is not much of a problem for us at all.		Crying is sometimes a problem for us, but we can usually manage.		My child's crying is stressful and frustrating.

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Cry Diary

This diary will help pinpoint the times of day and activities when your child often cries. By identifying the times and activities when crying is most likely, you can begin to change your daily routines to reduce crying.

1. Keep this diary for one week.
2. Every time your baby cries, mark it on the calendar.
3. Each square on the calendar represents one hour. Each square is divided into four 15-minute intervals.

   Example: 1 = 6:00 – 6:15
   2 = 6:15 – 6:30
   3 = 6:30 – 6:45
   4 = 6:45 – 7:00

6 a.m.	1	2
	3	4

   Mark the 15-minute interval in which the crying occurs. If the crying continues over more than one interval, mark all the intervals in which crying occurs.
4. Make an "X" whenever the crying seems to have to do with feeding. Make a "/" whenever the crying seems to be for another reason.
5. Make a note on the back of the calendar about what was going on when the crying started.
6. Make a note of what you did to calm your child and how well it worked.
7. At the end of the week, study your diary. Think about these questions. We will talk about them at our next meeting:
   - How often did your baby cry?
   - Did crying occur more frequently on certain days of the week?
   - Did your child often cry at certain times of the day?
   - What activities seem to cause crying?
   - What soothing activities seem to help? Which ones don't seem to help?
   - Is your child easily comforted?
8. Make a list of situations when your child often cries.

_____ _____

_____ _____

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Name: Week of:

	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
6 a.m.							
7 a.m.							
8 a.m.							
9 a.m.							
10 a.m.							
11 a.m.							
12 p.m.							
1 p.m.							
2 p.m.							
3 p.m.							
4 p.m.							
5 p.m.							
6 p.m.							
7 p.m.							
8 p.m.							
9 p.m.							
10 p.m.							
11 p.m.							
12 a.m							
1 a.m.							
2 a.m.							
3 a.m.							
4 a.m.							
5 a.m.							

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Diario del Llanto

Este diario le ayudará a identificar específicamente las horas del día y las actividades cuando llora su bebé. Si las identifica, Ud. podrá cambiar su rutina cotidiana para reducir el llanto.

1. Anote en el diario por una semana.
2. Cada vez que llora su bebé, anótelo en el calendario.
3. Cada cuadro del calendario representa una hora. Cada cuadro se divide entre cuatro intervales de 15 minutos.

   Ejemplo: 1 = 6:00-6:15
   2 = 6:15-6:30
   3 = 6:30-6:45
   4 = 6:45-7:00

6 a.m.	1	2
	3	4

   Marque el intervalo de 15 minutos cuando llora su bebé. Si llora más que un intervalo, marque todos los intervalos en que llora.
4. Ponga una "X" cuando parece que llora porque tiene hambre. Ponga un "/" cuando llora por otra razón.
5. Haga notas de lo que sucedía cuando empezó a llorar al lado reverso de la página.
6. Haga notas de lo que hizo para calmar a su bebé y si tuvo éxito.
7. Al fin de la semana, estudie su diario. Piense acerca de las siguientes preguntas. Hablaremos sobre ellas durante la sesión que sigue.
   - ¿Qué tan seguido lloró su bebé?
   - ¿Lloró más en ciertos días de la semana?
   - ¿Lloró siempre a cierta hora del día?
   - ¿Qué actividades hacen llorar a su bebé?
   - ¿Qué actividades parecen calmarlo? ¿Cuáles no parecen ayudar?
   - ¿Es fácil consolar a su bebé?
8. Haga una lista de situaciones en que llora.

_____ _____

_____ _____

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Nombre:														Semana del:	
	Dom		Lun		Mar		Mie		Jue		Vie		Sáb		
6 a.m.															
7 a.m.															
8 a.m.															
9 a.m.															
10 a.m.															
11 a.m.															
12 p.m.															
1 p.m.															
2 p.m.															
3 p.m.															
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4 a.m.															
5 a.m.															

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When Does My Child Cry?

Instructions

This checklist will help you check out what you have learned from the Cry Diary about the times when your child cries.

1. Look at your Cry Diary. From your notes in the diary, what things were going on when your child started to cry? List them on the lines below. Some examples might be bathing, middle-of-the-night feeding, waiting to be fed, range-of-motion exercises, or introducing new foods.
2. For the next week, keep a tally of how often your child cries during each of these activities.

One-Week Tally	
Activity/Situation	How Often Crying Occurred

As you look over your tally, ask these questions:

1. During which activities or times does crying happen most often? Are some of these activities similar?
2. Does crying increase. . .
   - when adults or other children are around?
   - when I am attending to my child?
   - at certain times of day?
3. Does my child seem bored or want to escape the activity?
4. Are there times when crying almost always occurs?
5. Are there times when crying almost never occurs?
6. Could the crying be signaling hunger, thirst, or pain?
7. What have I learned about my child's crying?

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¿Cuándo Llora mi Niño?

Instrucciones

Esta lista le ayudará a identificar lo que ha aprendido al llevar la cuenta de las veces que su bebé llora.

1. Tome su Diario del Llanto y revise las notas que Ud. apuntó. ¿Qué cosas ocurrían cuando empezaba a llorar su bebé? Anótelas en las líneas abajo. Algunos ejemplos pueden ser los siguientes: Lo estaba bañando; era la hora del alimento a media noche; esperaba su alimento; hacíamos ejercicios de movimientos largos; o le daba alimentos nuevos.
2. A la semana siguiente, guarde la cuenta de las veces que llora el niño durante cada una de estas actividades.

La Cuenta de Una Semana	
Actividad/Situación	Cuantos Tiempos ha Llorado el Bebé

Al revisar la cuenta, pregúntese lo siguiente:

1. ¿Durante cuáles actividades u horas llora más mi bebé?
2. Aumenta su llanto . . .
   - ¿cuándo están presentes adultos u otros niños?
   - ¿cuándo lo estoy atendiendo?
   - ¿a ciertas horas del día?
3. ¿Parece estar aburrido o querer esquivar la actividad mi bebé?
4. ¿Hay veces en que casi siempre llora?
5. ¿Hay veces en que casi nunca llora?
6. ¿Podría estar avisando que tiene hambre, sed o dolor?
7. ¿Qué es lo que he aprendido acerca del llanto de mi niño?

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Reducing Crying

Your home environment can help reduce crying. Here are some suggestions.

1. *Avoid intense stimulation.*

   Things like loud noises, very bright lights, sudden, startling movements, and slamming doors can cause children to cry. Create a gentle environment by turning down the telephone, using a dimmer switch for lights, and approaching your child gently and calmly.

2. *Establish a daily routine.*

   You can plan things you do every day—such as feeding, bathing, dressing, changing, and sleeping—to happen at the same time and in the same way. This way, your child knows what to expect and feels safer in the world. Use a special signal for each of these things—such as special music, words, or brightening or softening lights—to let your child know what's about to happen.

3. *Pick furniture that softens crying sounds.*

   Wall, window, and floor coverings can help make the sound of crying less jarring. Quilts or quilted wall hangings on the walls, cloth drapes on the windows, acoustic tiles on the ceiling, and carpet or rugs on the floor can help make the world a more livable place.

4. *Add comforting objects to the environment.*

   Some time-honored ways of providing comfort to crying babies may work for you. Rocking in a rocking chair or swinging in an infant swing might help. If you don't have a rocking chair and a swing at home try to borrow them to see if they will help. If your child has had seizures, check with your doctor about whether rocking and swinging activities are a good idea.

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Reduciendo el Llanto

El ambiente de su hogar puede reducir el llanto. Aquí hay unas sugerencias.

1. *Evite demasiado estímulo.*

   Ruidos fuertes, luces muy brillantes, movimientos bruscos o repentinos y golpes de puertas pueden hacer llorar a su bebé. Obtenga un ambiente apacible bajan do el sonido del teléfono, usando luces opacas y acercándose a su bebé con benevolencia y calma.

2. *Establesca una rutina cotidiana.*

   Puede planear que las actividades que se hacen todos los días, como las comidas, el baño, el vestirse, los cambios de pañal y las siestas sucedan a la misma hora y del mismo modo. De esta manera su bebé sabe que esperar y se sentirá más seguro en el mundo. Use una señal especial para cada una de estas actividades, como música especial, palabras, luces brillantes o suaves para hacerle saber al bebé lo que va a suceder.

3. *Escoja muebles que amortigüen los sonidos del llanto.*

   Los cobertores de paredes, ventanas y pisos pueden hacer el sonido del llanto menos irritante. Colchas o colgaduras acolchonadas en la pared, cortinas de tela en las ventanas, mosaicos acústicos en el techo y alfombras o tapetes en el piso pueden hacer que el ambiente sea más aceptable.

4. *Agrege objetos confortantes al ambiente.*

   Algunos modos tradicionales para confortar a los bebés podrían ser eficazes para Ud. Mecerse en una mecedora o columpiarse en un columpio infantil puede ayudar. Si no tiene una mecedora o un columpio en su casa, pida unos prestados para ver si le sirven. Si su bebé ha tenido ataques, pregunte a su doctor si mecerse y columpiarse serían buena idea.

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How We Can Respond to Crying

Babies and children may cry to tell us something (like, "I'm hungry!"), or they may cry for no reason we can see. This kind of crying can be difficult to stop.

Since crying can mean so many different things, it is important to have ideas of how to respond in different situations. Sometimes it will take good detective work to figure out what the crying is all about. Since we're making guesses, it is best to start with basic needs—hunger, thirst, discomfort, pain. When you know that the child's basic needs have been met, you can then go on to check out other guesses about what the crying means and what you can do about it.

On the left-hand side of the next two pages are possible reasons for crying. On the right-hand side of the pages are helpful ways to respond to that particular kind of crying. Try to figure out what your baby's crying means, then try the suggested response on the right.

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If my child is crying because . . .	Then I will . . .
A basic need requires attention (hunger, thirst, need to burp, dirty diaper, pain).	*Attend to that need.* Feed more often if necessary. Look for reasons your baby might be in pain: earache, toothache, stomach pain, skin sores, or chafing from poorly fitting equipment. Could there be a side effect from a new medication? Consult with your doctor or nurse if pain is suspected as the cause of crying.
Child is bored or wants attention or a change of activity. Crying may be a request for attention because interesting activities are not available to the child at that moment. Crying may also signal that there is too much activity going on, and the child is overstimulated.	*Encourage interesting and enjoyable activities that are appropriate to the moment.* Look for activities your child really enjoys. Clues of enjoyment include the child's turning toward an object or activity, making eye contact, smiling, or laughing. Sometimes the child is asking for human contact. While it's not possible or desirable to carry a child around all day, just being close to an adult can be comforting. Try placing the child close enough to you that you can give occasional smiles and pats. Try toning down your interaction by softening the tone of your voice and making fewer demands on the child. *Reward my child for not crying.* When your child is busy with an activity and is *not* crying, give a reward, such as talking, touching, cuddling, or a favorite treat. Look hard for a moment when your child isn't crying—even if it's just a pause for breath. Show how happy you are that your child is *not* crying. Paying attention to your child for *not* crying will teach the child that crying is not the only effective way to get attention. *Provide attention and support while my child adjusts to this new routine.* Don't forget to check for pain or discomfort in a new routine and make appropriate adjustments. Excusing your child from important exercises or routines may slow the child's adjustment and is, therefore, not a good idea. Encouraging the child to go through the routine while receiving encouragement and support *is* recommended. Therefore, *whether the child is crying or not,* pay warm, comforting attention to the child while doing the new routine. At least every one to four minutes, make eye contact and talk gently to your child, saying how proud you are that the child is doing the new activity. This way, you are expressing confidence in your child; you are giving the message that you understand that your child would like to get out of this activity, but it is important to continue.

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If my child is crying because . . .	Then I will . . .
My child is "difficult" or "irritable" and is not comforted even after all basic needs have been met.	*Explore ways to soothe and comfort my child.* Even when a child is not easily comforted, there may be "comforting strategies" that will help, either by themselves or in combination. Here are some ideas that have helped with children who cry a lot and have trouble calming down. *Carry, rock, or swing my child.* Rhythmic activities can help. Try rocking in a rocking chair 60 to 90 times a minute. This ideal rate is probably a little faster than most people would do naturally. Talk or sing to your baby while rocking. Hold your child up on your shoulder while rocking if you want the child to wake up. Hold your baby lying in your lap if you want to encourage sleep. *Walk or dance with my child on my shoulder.* Rocking from one foot to the other may be soothing—what some people call "Grandma's two-step." *Put my child in an infant swing.* Check the weight guidelines for your swing to be sure it is safe for your child. *Try sounds.* Voices can calm children down, especially in combination with walking or rocking. Lullabies or rhythmic choruses may be helpful. Some parents find tapes of white noise useful. *Touch my child.* Swaddling, long stroking, and massage can comfort infants in distress. "Swaddling" means wrapping the child securely in blankets. "Long stroking" means stroking the child's back with firm pressure on both sides of the spine, from the neck to the base of the spine. *Give my child transitional objects.* A special blanket or toy may comfort a baby. Try to find things that calm your child and make them available. For very young babies, electronic toys that imitate heartbeat sounds may be comforting.

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Como Reaccionar al Llanto

Los bebés y niños pueden llorar para decirnos algo (como, "¡Tengo hambre!") o pueden llorar por alguna razón que no podemos comprender. Este tipo de llanto es difícil de contener.

Como el llanto puede ser causado por muchas cosas diferentes, es importante tener varias ideas con que reaccionar a las situaciones diferentes. Algunas veces se requerirá un buen trabajo de detective para descrubrir porque llora el bebé. Ya que estamos adivinando, es mejor empezar con las necesidades básicas como el hambre, la sed, la incomodidad, el dolor. Cuando Ud. esté convencida que las necesidades básicas del bebé se han satisfecho, podrá investigar otras razones por lo que el bebé llora y lo que Ud. puede hacer.

Al lado izquierdo de las siguientes páginas verá razones posibles del llanto. Al lado derecho de las páginas, hay varias maneras para responder a cada razón específica. Averigüe porque llora su bebé y luego experimente con la respuesta sugerida a la derecha.

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Si está llorando mi bebé porque . . .	Entonces yo . . .
Una necesidad básica requiere atención (hambre, sed, necesidad de eruptar, pañal sucio, dolor)	*Atienda a esa necesidad.* Alimente más seguido a su bebé si es necesario. Averigüe las razones por lo cual su bebé tenga dolor: dolor de oído, dolor de dientes, dolor de estómago, llagas de piel o rozaduras causadas por el equipo. ¿Podría ser el resultado de un nuevo medicamento? Consulte a su doctor o enfermera si sospecha que el llanto es causado por dolor.
El bebé está aburrido o quiere atención o cambio de actividad. El llorar puede ser su manera de obtener atención porque las actividades interesantes no están sucediendo en ese momento. El llorar también puede ser señal de que hay demasiada actividad y que el bebé está estimulado demasiadamente.	*Anime al bebé con actividades interesantes y agradables que sean apropiadas para el momento.* Busque actividades que verdaderamente le gusten a su bebé. Indicaciones de agrado incluyen voltear la cabeza hacia un objeto o actividad, mirarle a los ojos, sonreír o reír. Algunas veces el niño está pidiendo contacto humano. No es posible ni deseable cargar al bebé todo el tiempo pero sí es bueno permitirle estar cerca de un adulto. Ponga al bebé cerca de Ud. donde pueda Ud. sonreírle y palmearle. Trate de disminuir su interacción con su bebé bajando el tono de su voz y exigiéndole menos participación. *Premiar al bebé si no llora.* Cuando el bebé está ocupado con una actividad y *no* está llorando, prémielo hablándole, tocándole, haciéndole cariños o dándole algo de comer que le guste. Busque el momento en que *no* esté llorando el bebé—aunque sea sólo por una pausa para respirar. Demuéstrele lo contenta que está Ud. cuando *no* está llorando. Haciéndole caso cuando *no* llora le enseñará que llorar no es el único modo efectivo para obtener atención. *Póngale atención y apoyo mientras el bebé se aviene a esta nueva rutina.* No se le olvide indagar si tiene dolor o está incómodo con la rutina nueva y haga los ajustes apropiados. Excusando a su bebé de hacer ejercicios o rutinas importantes puede atrasar su progreso y por eso no es buena idea. Animando al bebé a completar la rutina *es* recomendable. Por lo tanto, *si está llorando o no el bebé,* póngale atención amable y confortante mientras hace la nueva rutina. Por lo menos cada uno de cuatro minutos, mírele a los ojos y háblele suavemente, diciéndole lo orgullo que se siente porque el bebé está haciendo la actividad nueva. De esta manera Ud. expresa la confianza que tiene en su bebé, le da el mensaje que Ud. comprende que su bebé no quiere hacer la actividad, pero que es importante continuar.

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Si está llorando mi bebé porque . . .	Entonces yo . . .
Mi bebé es difícil de manejar o irritable y no se conforma aunque se le hayan proveído todas las necesidades básicas.	*Busque modos de apaciguar y consolar a mi bebé.* Aun cuando el bebé no se conforma fácilmente, puede haber "estrategias consoladoras" que ayuden, de por sí o en combinación. Algunas ideas que han ayudado para calmar a los bebés son las siguientes: *Cargue, meza o columpie a mi bebé.* Actividades rítmicas pueden ser de beneficio. Trate de mecerlo en una mecedora de 60 a 90 veces por minuto. Es probable que esta velocidad ideal es un poco más aprisa que lo que la mayoría de las personas lo harían. Hable o cante a su bebé mientras se mecen. Si quiere despertar a su niño póngalo contra su hombro, pero si quiere dormirlo, acuéstelo en su regazo. *Camine o baile con mi bebé contra el hombro.* Mecerse de un pie a otro pie puede ser calmante—lo que unas personas llaman "el paso doble de la abuela." *Ponga mi bebé en un columpio infantil.* Revise las instrucciones para comprobar el peso que puede resistir el columpio asegurándose de su seguridad. *Haga sonidos.* La voz puede calmar a los bebés, especialmente si uno camina o se mece. Las canciones de cuna o coritos rítmicos pueden ayudar. Algunos padres tocan cintas de "ruido blanco." *Toque a mi bebé.* Mantas suaves, caricias largas y masajes pueden consolar a los bebés angustiados. Envolviendo al bebé seguramente en mantas da buenos resultados. Las caricias largas deben ser a los dos lados de la espina, presionando firmemente desde el cuello hasta la base de la espina. *De a mi bebé objetos transitivos.* Una manta o juguete especial puede consolar al bebé. Trate de encontrar cosas que lo calmen y póngalas a su alcance. Para bebés muy pequeños, juguetes electrónicos que imitan al ritmo del corazón pueden ser útiles.

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Trying Out Strategies that Soothe and Comfort

List ideas that you think might comfort your crying child and that you would like to try:

1. _____

2. _____

3. _____

For the next week, keep a diary of when you use these ideas.
At the end of the week, look over your diary and answer these questions:

1. What ideas seemed the most helpful? Did any of the things I tried make a difference?

   _____

2. Were any things I tried clearly not helpful?

   _____

3. What ideas would I like to try next week?

   _____

4. Is the crying getting any better? Circle the number that describes how you feel:

1	2	3	4	5
There is no difference in my child's crying.		We might be making some progress, but I'm not sure.		I'm definitely able to comfort my child better.

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Comfort Diary			
Date and Time of Crying (Example: 11/20, 9:15 a.m.)	Brief Description of Activities/ Circumstances (Example: dressing to go to the grocery store)	Comforting Idea Tried (Example: long stroking)	How Well It Worked (On a scale of 1 = not at all effective to 5 = very effective)

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Probando Nuevas Estrategias que Sosiegan y Consuelan

Haga una lista de las ideas que Ud. piense puedan consolar a su bebé y que Ud. quisiera probar:

1. _____

2. _____

3. _____

Durante la siguiente semana, guarde un diario de cuando use estas ideas. Al fin de la semana revise su diario y conteste las siguientes preguntas:

1. ¿Cuáles ideas ayudaron más? ¿Dieron buenos resultados las ideas que probé?

   _____

2. ¿Cuáles ideas que probé no dieron resultado positivo?

   _____

3. ¿Qué ideas me gustaría probar la semana entrante?

   _____

4. ¿Ya no llora tanto el bebé? Ponga un círculo alrededor del número que describe lo que Ud. piensa.

1	2	3	4	5
No hay ninguna diferencia en la cantidad de tiempo que llora el bebé.		Tal vez estemos progresando, pero no estoy segura.		Definitivamente puedo consolar más bien a mi bebé.

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Diario de Ideas para Consolar			
Fecha y Hora Cuando Llora el Bebé (Ejemplo: 11/20, 9:15 a.m.)	Breve Descripción de Actividades/ Circunstancias (Ejemplo: vistiéndole para salir a la tienda)	Idea que se Usó para Consolar (Ejemplo: caricias largas)	Exito Obtenido (En una escala de 1 = ningún éxito, hasta 5 = muy eficaz)

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Coping with Crying

Crying can really get to adults, especially when it is hard to comfort the child. Many adults feel angry or edgy around a crying baby. Parents often report that their baby's crying is the hardest thing to get used to in parenthood.

Some days (and nights!) are easier than others in terms of coping with the crying. On the days (and nights!) when it's hard to cope, think about these choices:

1. *Trade responsibility for the child with another family member or friend.* Think ahead about who might be free to give you a break. Breaks could be long—like an afternoon away from the house—or very brief—like 5 minutes. When you need a break, ask this person to take over, and then leave the room. Use the break time to do something that relaxes you: Take a walk; read a magazine; drink a cup of tea.

Name here people who might provide breaks and check whether they can stay for a long or short time.

Name	Short Break	Longer Break
1.		
2.		
3.		

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2. *Use "stress busters."*
   Sometimes no one is available to give you a break. Then give *yourself* a break by trying one of these "stress busters":

   - *Two-minute vacation.* Take a "two-minute vacation" by doing some objective observing. Go to a window and concentrate on what you see: How many leaves are on a tree? Find one branch and count the leaves one by one. How many shades of green do you see? What are the variations? How many blues?

     If a window is not available, look carefully at some part of the room. For example, look closely at the bookcase. How many colors do you see? How many books are on one shelf?

     Be sure to breathe deeply while you are observing. Breathe in deeply and slowly; breathe out deeply and slowly.

   - *Visual imagery.* Take a mental vacation by placing yourself in a beautiful place that you love. It could be the seashore, the park, the mountains—any place that is especially beautiful to you. Try to see the details of the scene with yourself in it. Hear the sounds. Smell the smells. Think about how you feel when you are in that beautiful place. Breathe deeply.

   - *Relaxing muscles.* As you breathe in and out deeply, one by one relax the muscles in your eyes, eyelids, mouth, and tongue.

     Close your eyes and feel the muscles in your eyes and eyelids relax. Do rings of color appear in your mind? Don't *try* to see anything, but watch to see if anything appears.

     Breathe deeply and slowly.

     With your eyes still closed, feel the muscles in your tongue and mouth relax. Drop your tongue from the roof of your mouth to the floor. Don't say anything.

     Breathe deeply and slowly.

   - *Give yourself a hug.* A good way to stretch and relax muscles and reduce tension looks like giving yourself a hug (which you deserve!).

     Stretch your arms back from your shoulders. Feel your shoulders stretch. Bring your arms forward, cross them in front of you, and take hold of your upper arms. Gently massage your upper arms.

     Stretch your arms out again and repeat the hug, switching arms so that the other arm is on top. Massage your upper arms.

     Breathe deeply and slowly.

Name here the "stress buster" you'll try this week:

_____

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Enfrentándose con el Llanto

El llanto de un bebé puede angustiar a los adultos, especialmente cuando es difícil consolar al bebé. Muchos adultos se enojan o se sienten molestados cuando un bebé llora. Muchos padres de familia nos informan que el llanto del bebé es lo más difícil de aceptar.

Algunos días (¡y noches!) son más fáciles que otros. En estos días (¡y noches! cuando es más difícil enfrentarse al problema, considere llevar a cabo las opciones siguientes:

1. *Consiga que otro miembro de la familia o una amiga se haga responsable de su bebé por un rato.* Piense en quién tendría el tiempo libre para ayudarle. Los ratos pueden ser largos—como una tarde para salir de la casa—o muy cortos—como cinco minutos. Pida ayuda de esta persona cuando necesite un cambio y sálgase del cuarto. Use el tiempo para relajarse: caminar un poco; leer una revista; beber una taza de té.

Escriba el nombre de las personas que pudieran ayudarle y apunte si pueden quedarse un rato largo o corto.

Nombre	Rato Corto	Rato Largo
1.		
2.		
3.		

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2. *Use un "rompe-estrés."*
   A veces no se puede conseguir a alguien que le ayude. En ese caso tome Ud. un rato para probar uno de los siguientes "rompe-estreses."

   - *Vacación de dos minutos.* Tome una vacación de dos minutos para hacer una observación objetiva. Vaya hacia la ventana y concéntrese en lo que vea. ¿Cuántas hojas hay en un árbol? Fíjese en una rama y cuente las hojas una por una. ¿Cuántos tonos de verde puede ver? ¿Cuáles son las variaciones? ¿Cuántos tonos de azul?

     Si no hay una ventana en el cuarto, fije la vista en una parte del cuarto. Por ejemplo, fíjese en el armario para libros. ¿Cuántos colores ve? ¿Cuántos libros hay en un estante?

     Respire profundamente mientras hace sus observaciones. Aspire profundamente y despacio; espire profundamente y despacio.

   - *Imágines visuales.* Tome una vacación mental, transportándose a un lugar hermoso que le gusta mucho. Podría ser la playa, un parque, las montañas—cualquier lugar que Ud. considere especialmente hermoso. Trate de ver detalles con Ud. en la escena. Piense en como se siente cuando está en este hermoso lugar. Aspire profundamente.

   - *Relajando los músculos.* Mientras aspira y espira profundamente, relaje los músculos, uno por uno, de los ojos, los párpados, la boca y lengua.

     Cierre los ojos y sienta como se relajan los músculos de los ojos y párpados. ¿Aparecen en la mente anillos de colores? No *trate* de ver algo, pero mire si algo aparece.

     Respire profundamente y despacio.

   - *Dése un abrazo.* Una buena manera de relajar los músculos y reducir la tensión es darse un abrazo. (¡y lo merece!)

     Estire los brazos desde los hombros hacia atrás. Sienta como se estiran los hombros. Mueva los brazos hacia adelante, crúzelos y tóquese la parte alta de los brazos. Suavemente da masaje a la parte superior de los brazos.

     Estire los brazos otra vez y vuelva a abrazarse, cambiándolos de posición para que un brazo esté sobre el otro. Da masaje a la parte alta de los brazos.

     Respire profundamente y despacio.

Nombre aquí el "rompe-estrés" que probará esta semana:

_____ _____

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Part 3

Contexts for Social Reciprocity

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Community Involvement

Social reciprocity goals are not accomplished in isolation; rather, the process of supporting children and their caregivers in relating and responding to one another takes place in the settings in which children and adults find themselves. Most of the content of this guide has focused on supporting parents and children at home, certainly the most "naturally occurring" environment for very young children and their families. Other places and other relationships, however, will have important roles in the lives of young children. This final section of the curriculum guide will explore how to apply social reciprocity goals in a variety of important settings: in the community, in early intervention programs, and in therapy settings. Finding ways to enhance learning and strengthen relationships in all these situations is the desired outcome of social reciprocity interventions.

Early Involvement in the Community*

Parents and their children with disabilities should have the opportunity to participate in the community of young children and their parents. According to the normalization principle, individuals with disabilities have the right to enjoy patterns of life and everyday experiences that are similar to those of most other citizens (Nirje 1969). One reason to seek community activities is that they allow young children to be part of the life enjoyed by their age peers. Another reason is to expand children's opportunities to learn. Because children under the age of three are not usually in a school setting, the general community offers children the best opportunity for experiences with normally developing peers.

Community activities hold advantages for parents as well. Some parents of young children with severe disabilities have reported discomfort in "going public," that is, in participating in events and activities that might provoke uncomfortable comments or reactions from others (Calhoun, Calhoun, and Rose 1989). Increased participation in community activities, with helpful support, can open up the parent's world as well as the child's and can increase opportunities for pleasant activities for all members of the family.

*This section is adapted in part from Calhoun, Rose, and Armstrong (1989).

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Sample IFSP Outcomes: Community Involvement

Outcome #1

Parents and children will increase the time they spend in integrated community services.

Outcome #2

Parents will experience increased comfort in participating in integrated settings.

Outcome #3

Parents will receive information and participate in discussions about the benefits of community integration activities.

Outcome #4

Parents will identify community integration opportunities that are appealing and possible for their family.

Outcome #5

Parents will identify and discuss possible barriers to participation in community integration activities and discuss possible ways of overcoming those barriers.

Outcome #6

Parents will use self-recording techniques to monitor participation in community activities.

Outcome #7

Parents, with the support of staff, will engage in individual problem solving as needed.

Outcome #8

Parents will recognize the value of respite time for themselves and will make use of babysitters or respite care for their children.

Early Interventionists' Guide: Community Involvement

These outcomes are best discussed in small-group workshops. Suggested content for these family workshops follows:

Benefits of Community Activities

Materials / Resources Needed:

staff person or parents with successful community integration experience to facilitate the group

Parents who have children one or two years older than the children of families in the workshop could be particularly helpful.

Handouts or overhead transparencies:

Normalization
Having Fun in the Community
Social Competence

Discussion Outline: Why Community Integration Is Valuable

I. Community integration is valuable because it expands the child's world.

A. Being a part of the community is a valued goal for persons with disabilities, even for very young babies. Remind participants of the normalization principle: Individuals with disabilities have the right to enjoy patterns of life and everyday experiences similar to most citizens. (Show Normalization overhead transparency.)

B. Reasons to seek community integration.

1. It offers children the opportunity to be part of the life enjoyed by their age peers.

2. It expands the child's opportunities to learn.

a. The environments of a child with disabilities may be restricted to home and to specialized settings such as clinics, hospitals, special classes, and therapy offices.

b. Interactions may be restricted in the main to adults and to other children with special needs.

3. If the broader community is open to children, the environments and interactions open to them are much richer: restaurants, stores, parks, play groups, church nurseries, camp, theater, and entertainment. (Show Having Fun in the Community overhead transparency.)

4. These opportunities to interact give the child experience in meeting the demands of the environment, which can lead to increased social competence.

a. Tredgold (1937) defined the severity of a handicap as the amount of social assistance an individual needs from others to function in society.

b. If a person has the opportunity to increase social competence, then there is the possibility that the effects (the severity) of the handicap will be lessened. (Show Social Competence overhead transparency.)

II. Community opportunities. (Show Having Fun in the Community overhead transparency.)

A. Using the handout of activities as a prompt, ask parents to brainstorm other possible community activities: story hour at the library, a church nursery, children's films, parent-child swimming lessons at the YMCA, holiday parades, window shopping at the mall, Mother's morning out, play groups, museums and aquariums, eating out in restaurants, community fairs, holiday parties, birthday parties, playing with neighbors, child-care centers at adult leisure centers (for example, bowling alleys, exercise classes).

B. Ask each set of parents to identify a community activity that they would like to try.

III. Barriers to community participation.

A. Ask what barriers there might be to participating in and enjoying community activities. Responses might fall into these categories:

1. Discomfort on the part of the person in charge of the community activity. ("I'm not sure I can handle this child in this program.")
2. Responding to the reactions of the public. ("Will I cry?" "Will I be angry?" "Will I be embarrassed?" "Will I hurt for my child?")
3. Architectural and physical barriers may make participation physically difficult and stressful.

B. Lead a discussion on possible solutions.

1. Parents need to be tuned in to their own moods. ("What I can do today is what I can do today.") There will be times when "educating the public" is a comfortable challenge; at other times, they might not have the energy. Acceptable alternatives to taking the educative challenge are:
   a. Ignore the questions.
   b. Pretend not to notice the stares.
   c. Give short, unelaborated responses.
   d. Say you don't choose to discuss the situation.
2. Prepare the leader of the program or activity for the child's participation.
   a. Introduce the child ahead of time.
   b. Explain the child's special needs.
   c. Offer resources. ("My daughter's teacher would be glad to talk with you." "I'll bring his corner chair." "I'd be glad to stay for a few minutes to see if you have any questions.")
3. If the community staff person (for example, church nursery worker) seems unduly uncomfortable with the responsibility, do not hesitate to go to the person's superior (for example, minister or Advisory Board) to seek a solution that is comfortable for you.
4. Take a support person along. An adult friend or family member who knows you and your child and enjoys being with you can be the perfect buffer in moments of discomfort.
   a. A support person provides a ready excuse for ignoring questions or looks. (You turn to your friend and get really involved in a conversation.)
   b. A support person can also discuss the experience with you and add to your enjoyment of it.
5. Check out possible architectural barriers ahead of time, either by phone or through a visit. For example, calling the museum to find out if there is an elevator and where it is located can make a visit smoother and more comfortable.

IV. Recording community participation.

A. Self-recording should be voluntary; a Community Participation Log is provided in this manual. Logs of outings can serve as useful prompts and supports for trying out community activities. They can also be used to help with individual problem solving. Two examples of self-recording follow:

1. As part of a weekly or monthly home-school communication log or IFSP update, ask parents to estimate the number of minutes per week their child spends interacting with nondisabled peers (excluding siblings). Ask for examples of places and situations where interaction takes place. Graph their responses and share the results with the family.

2. Ask parents (again on a voluntary basis) to complete a weekly Community Participation Log.

V. Problem solving.

A. The Community Participation Logs may give some ideas about special areas in which parents could use additional support. Some of these areas might be:

1. Difficulty in thinking up community integration activities.

2. Continued discomfort in dealing with public comments and reactions.

3. Discomfort in response to changed circumstances—a more active sibling or a new piece of special equipment, such as a wheelchair, that sets the child apart more dramatically.

4. Difficulty in identifying a support person who could facilitate community participation.

B. Staff should brainstorm solutions with parents.

1. An acceptable solution is to wait awhile and try again at a later date; this solution should be discussed.

2. Parents can start "slow and easy." Think of the smallest, easiest community activity possible (perhaps strolling in front of the house with a neighbor child accompanying the parent and child for five minutes). Have parents set that small and easy goal and be very pleased when it is accomplished.

C. Help the parents identify support people—neighbors, friends, family members, other parents—who might occasionally be enlisted to help open the community to the child with special needs. Role-play with parents asking that person for help. Look to other parents in the educational setting, and facilitate outings and support among the parents.

D. Provide opportunities to practice difficult situations. In a group, have parents write on cards difficult situations they have experienced or anticipate. Then follow these steps:

1. Brainstorm possible ways of handling the situation.

2. Model ways of handling the situation.

3. Role-play handling the situation.
4. Critique the role plays as a group and elicit feedback. Be sure to role-play outrageous as well as sensible solutions, to illustrate the range of possible solutions.
5. Use parent-to-parent support for this activity.
6. Use visualization and relaxation exercises to imagine difficult situations and how they could be handled.

E. Provide opportunities for parents to share their successes in finding support or going into social situations.

F. Provide supportive articles from sources such as *Exceptional Parent* and the *TASH Newsletter.*

VI. Respite time. (Distribute Information for the Babysitter checklist.)

A. A parent support session should focus on identifying babysitters and respite services so that parents can have time alone together and for themselves.

1. Possible sources of babysitters (beyond family members, neighbors, and neighborhood teens) include college students, nursing students, high-school future teacher/future nurses groups, brothers and sisters of children with disabilities, teen support group for the Association for Retarded Citizens, and school personnel.
2. Also discuss the possibility of forming a parent cooperative.

B. Training the sitter (even if the sitter is a friend or family member) is often a worrisome responsibility for parents. In the parent support session, go through the Information for the Babysitter checklist. Have each parent note things to tell the sitter in each of the categories. What additional information should be included?

C. Encourage parents to start "slow and easy."

1. Begin with a visit from the sitter while the parent remains at home.
2. Leave for only an hour the next time, then gradually build up to longer periods.

D. Present information to parents about overnight respite care if it is available in your community.

Note: As a holiday gift to parents, the Charlotte Circle staff has provided in-school afternoon and evening respite care for enrolled children and their siblings so that parents could have a night out. This experience was used as a springboard for encouraging parents to seek other opportunities to have fun together.

Normalization

Individuals Can Enjoy

Patterns of Life

and

Everyday Experiences

Similar to Most Citizens

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Having Fun in the Community

Ideas of places to go:

- Restaurant/Cafeteria
- Toy store/Shopping mall
- Pet store
- Story hour at library
- Water play and swimming lessons
- Children's films
- Parades
- Holiday parties
- "Mother's morning out"
- School fairs
- Church nursery
- Park
- Birthday parties
- _____
- _____
- _____

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Social Competence

. . . the severity of a handicap is the degree to which an individual needs the assistance of other people to function in society.

Therefore, the amount of social assistance received from others defines the severity of the handicap.

As the need for assistance or supervision decreases, the severity of the condition lessens.

Based on Tredgold, A. F. 1937. *A textbook of mental deficiency.* 6th ed. New York: William Wood.

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Community Participation Log

Community activities I think I will try this week	Anticipated barriers/ challenges	What I can do to handle barriers/challenges

Actual Community Participation	
Day:	Place:
Time:	Event:
How my child responded:	
How others responded to my child:	
Expected benefits of this experience:	
Unanticipated benefits of this experience:	
Barriers or difficult situations:	
How I handled them:	
How I felt about this experience:	
Overall, I would rate this experience for my child as: Excellent Good Fair Poor	
Overall, I would rate this experience for me as: Excellent Good Fair Poor	

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Diario de Participación en la Comunidad

Actividades comunitarias que probaré este semana	Barreras/retos anticipados	Lo que puedo hacer para manejar las barreras/retos

Participación en la Comunidad	
Día: Hora:	Lugar: Evento:
Como respondió mi bebé:	
Como respondieron otros a mi bebé:	
Beneficios esperados de esta experiencia:	
Beneficios no anticipados de esta experiencia:	
Barreras o situaciones difíciles:	
Como las resolví:	
Como me sentía acerca de esta experiencia:	
Por lo general, califico esta experiencia para mi bebé como: Excelente Buena Admisible Pobre	
Por lo general, califico este experiencia para mi misma como: Excelente Buena Admisible Pobre	

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Information for the Babysitter

Special Handling
How do I pick up _____?
What special instructions are there for carrying _____?
Feeding
How much can the child do alone?
What special utensils are needed?
What foods are permitted?
What foods should be avoided?
What food consistency is necessary?
What is the recommended posture for eating?
What is the schedule for eating/drinking?
Is the child likely to choke? What should I do?
Bathroom
How much help is needed?
Is the child on a bathroom schedule?
Will the child let me know of bathroom needs?

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Play/Behavior
What positions are best for playing?
What are favorite toys/activities?
Are there likely to be behavior problems? How should they be handled?
Medication/Medical Needs
What medicine?
When?
Special routines?
Are there any medical problems I should know about?
In case of emergency contact:
Is the child likely to have seizures? What are they like?
Communication
Does the child have a special communication system?
Are gestures used?
List any words I might not understand:

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Información para la Niñera

Manejo Especial
¿Cómo levanto a _____ ?
¿Hay instrucciones especiales para cargar a _____?
Alimentación
¿Cuánto puede hacer por si solo el niño?
¿Qué utensilios especiales se necesitan?
¿Qué alimentos se permiten?
¿Qué alimentos no se permiten?
¿Qué consistencia de alimentación es necesaria?
¿Qué posición se recomienda para comer?
¿Qué es el horario para comer/beber?
¿Es probable que el bebé ahogue? ¿Qué debo hacer?
Uso del Baño
¿Cuánta ayuda necesita?
¿Tiene el niño un horario para ir al baño?
¿Me avisará el niño que quiere ir al baño?

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Juegos/Comportamiento
¿Cuáles posiciones son las mejores para jugar?
¿Cuáles son sus juguetes/actividades favoritos?
¿Tendremos problemas de comportamiento? ¿Cómo deben manejarse?
Medicación/Necesidades Médicas
¿Qué medicina?
¿A qué hora?
¿Rutinas especiales?
¿Existen problemas médicos de los cuales debo estar informada?
En caso de emergencia llame a:
¿Hay probabilidad de que el bebé sufra ataques? ¿Cómo son?
Comunicación
¿Tiene el niño un sistema especial de comunicación?
¿Usa ademanes?
Haga una lista de las palabras que tal vez yo no entienda.

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Social Reciprocity Interventions in Preschool, Day-Care or Center-Based Programs

Center-based programs, whether they be day-care centers, early intervention programs, or integrated preschools, offer many opportunities to promote pleasant social interactions between children and caregivers. Interventions can enhance relationships within the child-care programs themselves, then treatment can focus on generalizing new behaviors to family relationships. The following is a typical daily schedule in an early intervention program. Suggestions have been made on how to include and promote social reciprocity throughout the day.

Daily Schedule

7:45-8:45: Arrival, toileting, learning to play or free play

Arrival. Each child's arrival is an opportunity for a pleasant greeting and warm welcome. All children (and parents) should be personally acknowledged as they enter the classroom. Transitions of this sort are stressful for some children, and if they cry upon arrival, every effort should be made to comfort them and make the separation from parents easier. Holding, rocking, and transitional objects from home can help to ease a child's discomfort. Exchanging information about the child among parents and staff is also important at this time.

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Toileting. Diaper changing or using the toilet is a good time to chat and promote positive interaction. Diapering is a great time to recite little rhymes such as "this little piggy" to teach body parts, or just talk and gaze into the child's eyes. Caregivers can talk about what they are doing as they dress and undress the child. Cleaning up and washing hands are further topics for conversation.

Free Play. Most school or day-care settings work at least one play session into each day. This can be a time for rich socialization between caregivers and children. Caregivers should be available to show children how to play with objects and with each other. They need to be aware of children's range of abilities so that play objects are not too difficult or easy, and they should help children to interact with each other at every opportunity. Encouraging play, imitation, and reciprocal smiling are natural goals for this time of day.

8:45-9:15: Relaxation, massage, range of motion

Massage. This a wonderful time of the day for both caregivers and children to relax together. Children love to be touched and rhythmically stroked, and it is a kind of mental break for caregivers when they can relax their minds and offer a pleasant physical sensation to the child. This is a great time to play relaxing music and a good "marker" in the day. It can help prepare younger infants for a morning nap or older children for a more demanding activity. Massage is also a good relaxing precursor to motor therapy or range-of-motion exercises. (Lowering the lights is a good signal for massage, and relaxing music helps set the stage.)

9:15-9:45: Snack or juice

Any time food and drink are offered provides an opportunity for social interaction (talking, smiling, describing, and so on).

9:45-10:30: Morning play groups

Small groups of two or three children working on related goals offer good opportunities for social interaction, turn-taking, and imitation.

10:30-11:00: Sensory awareness/art activities

Exploring new sensory experiences together can be great fun and a good time to experience surprises! Textures, temperatures, smells, and other sensations make great new experiences to describe.

11:00-11:15: Diapering, toileting, preparing for lunch

This would be a good time to play a specific piece of music as a signal that it's time to eat. Getting into bibs and sitting around the table both signal "lunch" to children.

11:15-12:00: Lunch

Again, any time food or drink is offered is a great time for describing textures, tastes, and sensations. Eating should be an enjoyable part of the day. Use this time to really read the child's communications. Don't

force food if the child gives signs of being full, and let the child communicate preferences whenever possible.

12:00-1:15: Quiet time/nap

This is an excellent time for massage, if it has not been performed earlier. Holding, rocking, singing, and reading aloud to individual children are all excellent ways for those children who do not nap to spend quiet time. For children who find it difficult to relax to voice or touch, exploring techniques to help improve motor tone and to promote relaxation are appropriate here.

1:15-2:00: Outdoor or multipurpose room time

A walk outside or around the school or center can be a good opportunity to meet other people, hear outside sounds, smell new smells, play on a playground, and generally broaden the child's world. New or different surroundings abound with wonderful opportunities for descriptive language.

2:00: Going home

The transition time from school or center to home should be a time for staff and families to exchange information as well as a time for friendly good-byes. There are many effective ways to set up home-school communications: photos (with notes written on the back), notebooks, daily notes or checklists, and "warm-lines" (a regular phone-in question-and-answer time for parents) are all effective. A simple, one-minute conversation between parents and staff when the child is picked up may be all that is needed. It is important for families to know what has gone on at school and for staff to be aware of happenings at home. Communication is essential if gains made at school are to carry over into home, and vice versa.

Social Reciprocity Interventions in Therapy Sessions*

Social reciprocity interventions enhance the child's responsiveness to all caregivers. Although parents are usually the child's primary caregivers, grandparents, child-care workers, brothers, sisters, teachers, and therapists also provide care. The majority of therapists consider themselves direct service providers who design and deliver hands-on treatment for the child. The enactment of PL 99-457 encourages therapists to consider how to include children and their adult caregivers as primary consumers of therapeutic services. Rather than viewing family-centered care as a mandate to work exclusively with family members, therapists can collaborate with parents and other caregivers in order to expand the impact of therapeutic activities on a child's development (Hanft 1988).

Working directly with a young child with severe disabilities gives therapists an excellent opportunity to observe and influence the child's ability to respond and interact appropriately with people. All the infant's responses, from crying or averting gaze to smiling, cooing, or calming, should be viewed as important communications worthy of attention. Such observations should be shared with parents and other colleagues to evaluate the frequency and ease with which a child is interacting with adults. Parents have a wealth of information to share

*This section is adapted in part from Calhoun, Rose, Hanft, and Sturkey (1990).

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regarding how typical a certain observed behavior is, when such behavior is most likely to occur, what it may mean, and how best to deal with it. Just as therapists are experts in techniques of handling, positioning, and developing motor, language, and play skills for children in general, parents are the experts about the behavior of their child.

Therapists can build on their skills as observers of behavior, especially those child behaviors related to their discipline. Occupational therapists focus on functional and adaptive skills, physical therapists on movement and posture, and speech-language pathologists on communication. Proponents of interdisciplinary services recognize the overlap in these areas and realize that a child is more than equal to the sum total of his or her developmental domains. Therapists can expand their discipline-related skills of observation and treatment techniques to incorporate the goal of enhancing a child's social responsiveness. This can be accomplished through direct service to the child as well as collaborative consultation with caregivers. For example, using sensory integration techniques to help a child organize multisensory stimuli or reduce intolerance to movement ensures that the child also can respond appropriately to a caregiver who initiates play time with bouncing and swinging games or who pairs loud singing with rocking. Therapists can collaborate with family members to find ways to manage the specialized procedures and therapy programs young children with severe delays need but which often interfere with socially responsive behavior. These procedures include suctioning, tube feeding, and range-of-motion exercises, as well as using adapted equipment such as specialized wheelchairs, splints, augmentative communication devices, orthoses, and prosthetics. Helping a family member master the task of suctioning a child's lungs while talking and maintaining eye contact is an important therapeutic goal. Additionally, therapists can help parents identify pleasurable and soothing activities with which to begin and end these procedures that, although life sustaining, are also invasive.

Finally, therapists must help parents balance the responsibilities of raising a child with severe disabilities with pleasurable interactions that build positive, reciprocal interchanges between parent and child. Parents cannot be expected to be teachers and therapists for their children, although some may want to be some of the time. Parents can use therapeutic techniques in their daily child-care activities, however, if therapists can design strategies with parents to incorporate and individualize therapy programs that build on family resources.

Appendix A: Identifying and Selecting Reinforcers

One important aspect of teaching any child is knowing what is reinforcing to that child. Proper use of reinforcement is necessary both in teaching new skills and in strengthening those skills that have already emerged. The key characteristic of reinforcement is that it will increase the action or behavior it follows. So, if the child performs a new skill and receives praise for it, the skill is more likely to be repeated because it produced the pleasant social praise. There are several different categories of reinforcers, and what is reinforcing or pleasurable to one child may not be to another.

Young children in general tend to respond well to social reinforcers such as praise (clapping or saying, "Good girl, Amy"), physical contact (for example, hugging, kissing, patting, or holding), and expressions (such as smiling). Tangible reinforcers such as food, drinks, and favorite objects and activities also work well with infants and young children.

How, then, do we learn what each child finds reinforcing? Certainly, just spending time with a child will give some clues. But to form a substantial list of reinforcers for each child, one needs to explore several different avenues.

PARENTS The easiest and most important source of reinforcement ideas is the child's parents or primary caregivers. Ask family members to fill out a reinforcement inventory for their child soon after enrollment and again at regular intervals. (Appendix B lists a sample inventory.) Ask parents to list all the child's favorite foods, smells, objects, sounds, songs, textures, sensations, and activities.

CLASSROOM STAFF Post a list of reinforcers for each child in the classroom. Have everyone who works with a child add to it as they identify new items. Not only does this remind staff to write down ideas, but it also encourages them to use varied reinforcement. Parents, too, can add to their child's list whenever they visit the classroom.

TESTING To be certain that a particular thing is truly reinforcing the following procedure can be used:

1. Identify a newly learned skill at which the child is not yet proficient.
2. Work with the child on that skill for a two-minute period without offering reinforcement and record the number of correct responses. Collect and record several sessions of this baseline data.

3. Next, work on the same skill or task for a two-minute time period, and offer a reinforcer immediately after each correct response. Collect and record several sessions using a specific reinforcer.

If the number of correct responses increases with reinforcement, the reinforcer is effective for that child. If the number of correct responses decreases or remains the same, the reinforcer is not effective for that particular child.

Remember that children quickly can become bored with any reinforcer, and it is good practice to alternate among reinforcers so that they remain effective. Equally important is that the reinforcement be delivered immediately after the desired behavior so that the child will associate the reinforcement with the task and will want to repeat the task.

Some possible reinforcers for infants and young children with disabilities can be found in Appendix B. These reinforcers will not work with every child, but they are a starting place to help parents and early intervention program staff discover new reinforcers for their children.

Date: _____

To: Family of _____

In order to teach most effectively, we need to know what your child's *favorite* things are. Families know their children best, so we would like you to tell us what your child's favorite things are. Include in your list foods, sounds, smells, songs, textures, objects, sensations, activities, or anything else you can think of. Please use the bottom of this page for your list and return it as soon as possible. Thank you so much for your help.

Signed: _____

Child's Name:	
Parent or Guardian:	
Favorite Things	
1.	11.
2.	12.
3.	13.
4.	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	20

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Fecha: _____

Para: La familia de _____

Para enseñar más eficazmente necesitamos saber cuales son las cosas *favoritas* de su bebé. Las familias conocen mejor a sus bebés, por lo tanto quisiéramos que Ud. nos dijera cuales son las cosas favoritas de su bebé. Incluya la comida, los sonidos, los olores, las texturas, los objetos, las sensaciones, actividades o cualquier otra cosa. Haga favor de usar la parte baja de esta hoja para su lista y devuélvala tan pronto como le sea posible. Muchas gracias por su ayuda.

Firma:_____

Nombre del bebé:	
Padre o guardián:	
Cosas favoritas	
1.	11.
2.	12.
3.	13.
4.	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	20

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Appendix B: Possible Reinforcers for Infants and Young Children with Disabilities

1. Swinging in a hammock or swing (Check with your physician and therapist before trying because swinging may induce seizures in some children.)
2. Gliding on a scooter board
3. Bouncing on an air mattress
4. Lying in a pit filled with multicolored balls (or foam rubber peanuts)
5. Rolling
6. Tickling
7. Being held
8. Being rocked in a rocking chair
9. Being read to
10. Massage or stroking
11. Verbal praise
12. Clapping
13. Smiles
14. Looking at bubbles being blown or blowing bubbles
15. Looking at a mirror
16. Tinsel or other shiny objects (with adult supervision)
17. Hugging
18. Whistle, bird whistle
19. Musical toys or instruments
20. Kisses
21. Gentle pats on the chest
22. Smells: faint perfume, spices, potpourri
23. Textures: beans, macaroni, crumpled paper, soft fake fur, stuffed animals (Make sure the child is *well* supervised—children can choke on textured materials.)
24. Noisy wind-up toys
25. Computer games (with noise and lights)

26. Flashing strings of colored lights
27. Bells
28. Blowing lightly on the skin
29. Rattles or measuring spoons on a ring
30. String (with supervision)
31. Rocking on a rocking horse
32. Singing and music
33. Games such as "pat-a-cake," "this little piggy," "peek-a-boo"
34. Rubbing noses
35. Vibrators, vibrating pillows
36. Having hair brushed or stroked
37. Gentle back scratch
38. Food: cookies, graham crackers, fruit juice, ice cream, pudding
39. Riding in stroller or wagon
40. Going outdoors (playground equipment)
41. Opening and closing doors
42. Turning lights on and off
43. Playing in soapy water
44. Adult talk

For more information on how to test and use reinforcers see:

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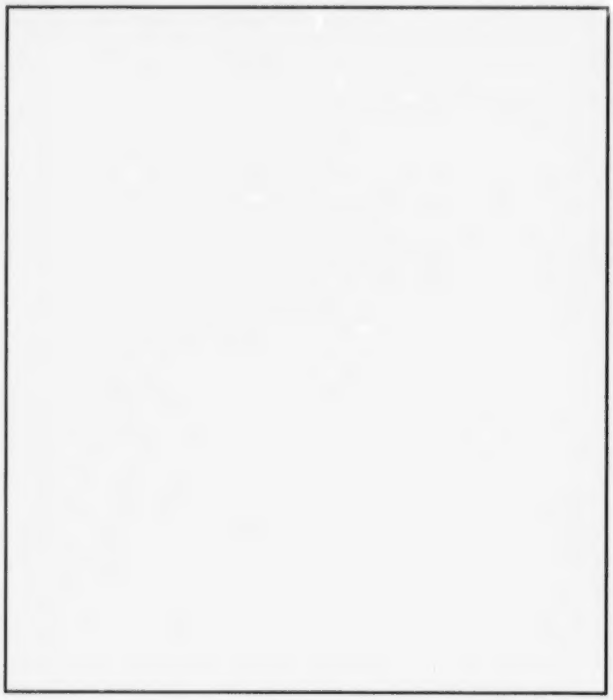

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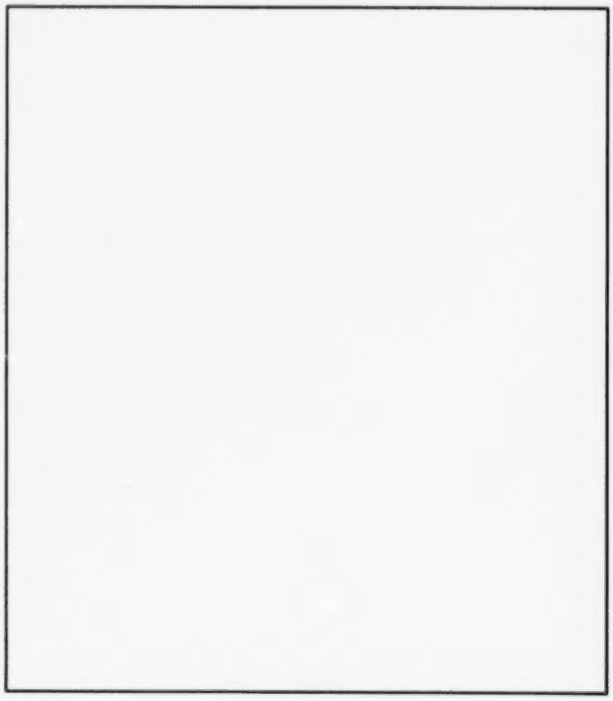

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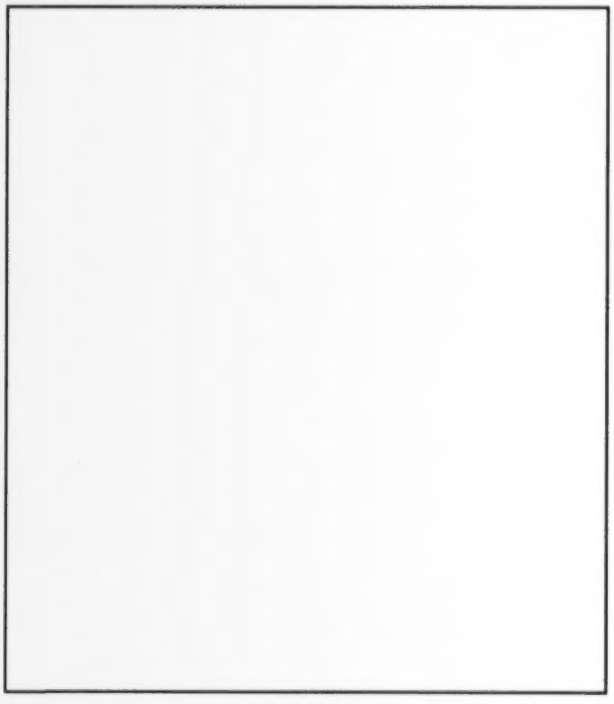

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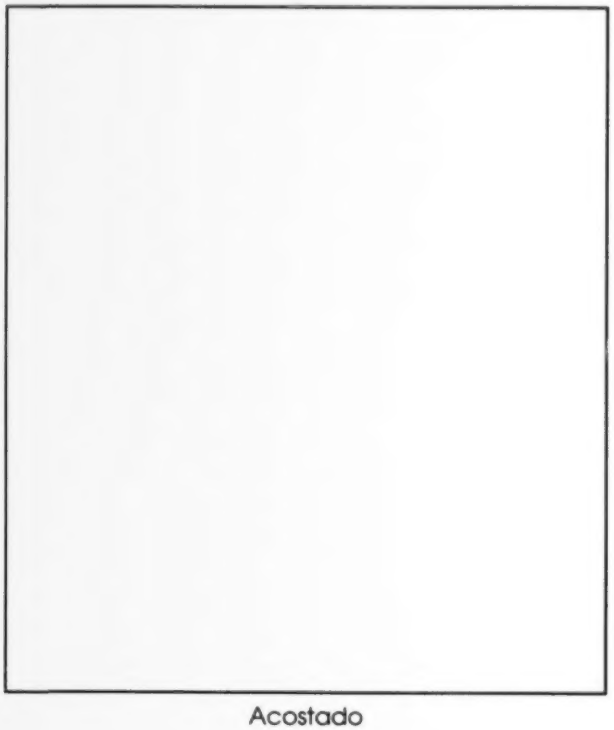

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